

# BRIGHAM YOUNG UNIVERSITY



*Annual Catalog Issue*

*1962-64*

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# *Brigham Young University* *Bulletin*



## **CATALOG OF COURSES**

**1962-63 and 1963-64**

This catalog covers two complete academic years. Please keep it for reference throughout the 1962-63 and 1963-64 school years.

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## 1962

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## 1963

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## 1964

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# University Calendar

1962-63

Although as accurate as possible at the time of the printing of this catalog, the calendar is subject to change at the discretion of the University administration.

## First Semester

**September 13, 14 (Thursday, Friday):** Utah Conference on Higher Education.  
**September 15, 16, 17 (Saturday, Sunday, Monday):** Student leadership conference.  
**September 17, 18 (Monday, Tuesday):** Faculty Workshop.  
**September 18 (Tuesday):** A.C.T. test for all those who have not previously taken the test.  
**September 19, 20, 21 (Wednesday, Thursday, Friday):** New student orientation and placement tests.  
**September 22 (Saturday):** New student registration.  
**September 24, 25 (Monday, Tuesday):** Registration for all regular and special students.  
**September 26 (Wednesday):** Class instruction begins.  
**September 29 (Saturday):** Junior English Proficiency Examination.  
**October 12 (Friday):** Last day on which late registration may occur for First Semester and for adding and dropping classes.  
**November 3 (Saturday):** Homecoming—New Mexico.  
**November 10 (Saturday):** Mid-semester registration for courses available to students on special authorization.  
**November 22, 23 (Thursday, Friday):** Thanksgiving recess.  
**December 20 (Thursday) through January 2 (Wednesday):** Christmas recess.  
**January 26, 28, 29, 30, 31 (Saturday, Monday, Tuesday, Wednesday, Thursday):** First Semester examination period.

## Second Semester

**February 2 (Saturday):** New student orientation.  
**February 4, 5 (Monday, Tuesday):** Second Semester registration.  
**February 6 (Wednesday):** Class instruction begins.  
**February 9 (Saturday):** Junior English Proficiency Examination.  
**February 22 (Friday):** Last day on which late registration may occur for Second Semester and for adding and dropping classes.  
**March 30 (Saturday):** Mid-semester registration for courses available to students on special authorization.  
**May 1 (Wednesday):** "Y" Day.  
**May 25, 27, 28, 29, 30 (Saturday, Monday, Tuesday, Wednesday, Thursday):** Examination period for Second Semester.  
**May 30 (Thursday):** Baccalaureate services.  
**May 31 (Friday):** Commencement exercises.

## Summer Session, 1963

**June 10, 11, 12, 13, 14 (Monday, Tuesday, Wednesday, Thursday, Friday):** Leadership Week.  
**June 17 (Monday):** Registration.  
**June 18 (Tuesday):** Class instruction begins.

**July 4 (Thursday):** National holiday observed.  
**July 19 (Friday):** First term ends.  
**July 22 (Monday):** Second Term begins.  
**July 24 (Wednesday):** State holiday observed.  
**August 23 (Friday):** Second Term ends.  
**August 23 (Friday):** Eighty-eighth summer convocation held.

## 1963-64

### First Semester

**September 12, 13 (Thursday, Friday):** Utah Conference on Higher Education.  
**September 14, 15, 16 (Saturday, Sunday, Monday):** Student leadership conference.  
**September 16, 17 (Monday, Tuesday):** Faculty Workshop.  
**September 17 (Tuesday):** A.C.T. test for all those who have not previously taken the test.  
**September 21 (Saturday):** New student registration.  
**September 23, 24 (Monday, Tuesday):** Registration for all regular and special students.  
**September 25 (Wednesday):** Class instruction begins.  
**September 28 (Saturday):** Junior English Proficiency Examination.  
**October 11 (Friday):** Last day on which late registration may occur for First Semester and for adding and dropping classes.  
**November 2 (Saturday):** Homecoming.  
**November 9 (Saturday):** Mid-semester registration for courses available to students on special authorization.  
**November 21, 22 (Thursday, Friday):** Thanksgiving recess.  
**December 18 (Wednesday) through January 3 (Friday):** Christmas recess.  
**January 25, 27, 28, 29, 30 (Saturday, Monday, Tuesday, Wednesday, Thursday):** First Semester examination period.

### Second Semester

**February 1 (Saturday):** New student orientation.  
**February 3, 4 (Monday, Tuesday):** Registration for Second Semester.  
**February 5 (Wednesday):** Class instruction begins.  
**February 8 (Saturday):** Junior English Proficiency Examination.  
**February 21 (Friday):** Last day on which late registration may occur for Second Semester and for adding and dropping classes.  
**March 28 (Saturday):** Mid-semester registration for courses available to students on special authorization.  
**April 29 (Wednesday):** "Y" Day.  
**May 23, 25, 26, 27, 28 (Saturday, Monday, Tuesday, Wednesday, Thursday):** Second Semester examination period.  
**May 28 (Thursday):** Baccalaureate services.  
**May 29 (Friday):** Commencement exercises.

### Summer Session, 1964

**June 8, 9, 10, 11, 12 (Monday, Tuesday, Wednesday, Thursday, Friday):** Leadership Week.  
**June 15 (Monday):** Registration.  
**June 16 (Tuesday):** First Term begins.  
**July 17 (Friday):** First Term ends.  
**July 20 (Monday):** Second Term begins.  
**July 24 (Friday):** State holiday observed.  
**August 21 (Friday):** Second Term ends.  
**August 21 (Friday):** Eighty-ninth summer convocation held.

# *Student Academic Services*

## **Office of Admissions and Records**

The Office of Admissions and Records is primarily a service office for all Brigham Young University students from the date they apply for admission until they are graduated from the University. It is a service agency also to parents, to the faculty, to the State, and to various agencies eligible to receive information regarding the records of these students.

Student academic services performed by the Office of Admissions and Records for the University include admission of students, high school and junior college relations, undergraduate scholarships and awards, registration of students, preparation of class schedules, assignment of instructional space, assignment of office space, evaluation of transfer credit, evaluation of foreign student credit, graduation summary reports, academic grade reports, general education program evaluation, transcripts of University credit, selective service information, statistical information, and preparation of graduation lists.

The dean of Admissions and Records has general supervision over the services listed above. It is his responsibility to initiate and to recommend regulation, policies, and procedures for implementing these student academic services and to administer the program of the Office of Admissions and Records as approved by the administration of the University.

## **Admission**

Admission to the University is granted on the basis of an official application. Necessary forms are furnished by the Office of Admissions and Records upon request.

Students who apply for admission and who are accepted by Brigham Young University are required to maintain ideals and standards in harmony with those of the Church of Jesus Christ of Latter-day Saints. High standards of honor, integrity, and morality; graciousness in personal behavior; application of Christian ideals in everyday living; and abstinence from alcohol and tobacco are required of every student.

**New Freshman Students.** To be admitted to the University as a regularly matriculated student, an applicant must be a graduate of an approved high school and must have selected nine academic units from one or more of the following areas: English, mathematics, science, social science, foreign language. This means, for example, that a student might have three units of English, two of mathematics, two of science and two of social science or any other combination of high school units which totals nine.

To be eligible for regular admission, a student must also have a grade-point record average of 2.2 (A=4.0, B=3.0, C=2.0, D=1.0, E=0) in his previous high school work. Any exceptions to the admissions standards must be approved by the Admissions Committee.

A student who has not graduated from high school but who has sixteen units (Carnegie) of high school credit may be admitted if his course of study and grades are approved by the Admissions Committee.

Students nineteen years of age and over who have not completed high school, but who otherwise are eligible for admission, may register as regularly matriculated students after the successful completion of the high school level General Education Development Tests. These tests may be taken at Brigham Young University, at the testing divisions of most colleges and universities, at most armed forces educational centers, or at a number of high schools.

Applications for all new freshman students seeking admission to B.Y.U. should be submitted at least **thirty days** prior to the time of registration. Students submitting applications after this date may encounter delay and inconvenience in their admission and registration.

**New Transfer Students.** To be admitted to the University, a transfer student must give evidence of having maintained an average of 2.0 (A=4.0, B=3.0, C=2.0, D=1.0, E=0) in his previous college work. Any exceptions to the admissions standards must be approved by the Admissions Committee.

Applications should be submitted at least **thirty days** prior to the time of registration. Students submitting applications after this date may encounter delay and inconvenience in their admission and registration.

The early presentation of all transfer credit is necessary so that the credit may be properly evaluated prior to registration.

**New Students from Foreign Countries.** To be admitted to the University, a student from a foreign country must present credentials corresponding to the requirements stated above under the headings "New Freshman Students" or "New Transfer Students."

Foreign-student applications received on or before April 15 will be considered for First Semester. Applications received on or before August 15 will be considered for Second Semester. Applications for Summer Session should be received on or before January 15.

**Former B.Y.U. Students.** All former B.Y.U. students who have discontinued school for one semester or more must apply for readmission. Readmission applications are furnished by the Office of Admissions and Records upon request.

Application for readmission should be made at least **thirty days** prior to registration.

**Repeating Students.** Registration packets are prepared for all students in attendance at the University the previous semester.

**Summer School Students.** The same admission requirements as already outlined apply to new summer school applicants.

Students in attendance at either of the two previous summer sessions need not apply for readmission. Registration packets are prepared for them.

**Notice of Acceptance.** A notice of acceptance will be mailed promptly to all new and former students accepted by the University. A student with deficiencies will receive an answer to his application for admission outlining the problems involved.

## Advanced Placement

Eight semester hours of credit will be granted for a composite grade of 5, 4, or 3 on any advanced-placement examination taken by a high school student at the completion of a full-year course, with class meetings held each day of the school year, organized according to the description published by the Committee on Advanced Placement of the College Entrance Examination Board.

Upon recommendation of the academic department concerned, Brigham Young University may (a) grant eight semester hours credit for a grade of 2 on both parts of an advanced-placement examination taken under conditions described in Paragraph 1, or (b) may allow appropriate advanced placement without college credit. A departmental recommendation will be based upon a review of all pertinent factors including the student's advanced-placement examination and his achievement in the special course.

## Undergraduate Scholarships, Awards, and Grants

The University annually awards to high school graduates, to students transferring from other colleges or universities, and to Brigham Young University stu-

dents a significant number of scholarships and awards. Recipients for scholarships are selected on the basis of demonstrated academic ability, character, leadership, and service activity. Candidates for awards are determined on these same bases, but also are considered on the basis of outstanding skills in speech, drama, music, art, dance, journalism, and forensics. Students who have served in major and responsible positions of leadership in high school may receive a leadership award.

The University awards grants-in-aid to deserving students who have maintained a commendable academic record and who are in critical financial need. Grants-in-aid, as well as scholarships, are applied toward the payment of tuition and general fees. Any renewable scholarship, award, or grant is contingent upon the recipient's maintaining a 3.0 (B) grade-point average while carrying fifteen semester hours or more during the current semester. A scholarship, award, or grant may be withdrawn at any time at the discretion of the Undergraduate Scholarships and Awards Committee if the recipient has failed to comply with the spirit and letter of the original terms of the scholarship, award, or grant.

The University also awards grants to selected athletes who qualify under the rules and regulations of the Mountain States Athletic Conference. These grants may include part or all of the students' commonly accepted educational expenses as defined by the N.C.A.A. A student athlete must meet either of the following recommendations:

- a. If a freshman, he must have been rated academically as in the upper two-thirds of his high school graduating class. For the first year, such an award shall be made for the entire school year.
- b. If not a freshman, the student must be in good academic standing and not on probation. Such an award shall be made on a semester basis.

Graduate students are eligible for scholarships, fellowships, and grants. For further information see the Brigham Young University Graduate School Catalog.

All scholarships, awards, and grants-in-aid are under the jurisdiction of a central committee which alone has the authority to promise or grant an award. Applications should be made to the chairman of the Committee on Scholarships and Awards.

## Registration

**Registration Procedure.** Details of the registration procedure are outlined in the class schedule issued each semester by the Office of Admissions and Records.

**Limitation on Credit in One Semester.** Undergraduate students in good standing may register for as many as 17 hours of credit in any one semester by following the regular registration procedure. In the case of a student who has academic ability of high quality, the dean of a college may authorize the student to register for a maximum of 18 hours for the first semester in residence and a maximum of 19 hours for any succeeding semester. Any student who has completed 15 or more hours of college work and who has a cumulative average of 3.5 (or a 3.5 average in the semester previous to registration) may register, with the consent of his dean, for 21 hours. Classes taken for audit, registration by correspondence, and evening school or off-campus courses constitute a part of the student's total registration. Any exceptions to the above rules shall be presented to the dean of Admissions and Records by the dean of the college concerned.

**Time of Registration.** Students are urged to register on the days set for registration (See University Calendar). A late fee is charged each student who does not complete his registration on the specified days. The term "registration" refers to the entire procedure, including the payment of fees. A student may enroll in any class during the first three weeks of the semester if he has the permission of the instructor of the class and the approval of the dean of the college in which he is registered.

**Course Divisions.** Courses of study are given numbers as follows:

Preparatory and remedial courses .....	1-99
Lower division courses .....	100-299
Upper division courses .....	300-499
Graduate or advanced undergraduate courses .....	500-599
Graduate courses .....	600 and above

**Election of Studies.** With the advice and approval of the dean of the college in which he registers, the student should elect such studies as are thought desirable. The major and minor, as well as the general requirements for graduation, should be kept in mind.

**Withdrawal from Classes.** Students discontinuing registration at the University are required to clear their termination through the office of the dean of their college and then the dean of students.

Any student withdrawing from individual classes shall clear with the dean of the college in which he is registered.

- a. If a student officially withdraws from a class during the first three weeks of a semester, the permanent record will show no registration for the class in question.
- b. A student doing passing work in a course may drop the class between the third and twelfth week if such action is recommended by the teacher, the student's adviser, and the dean of his college, and if it is approved by the Academic Regulations Committee. A grade of "W" will be assigned for the class.  
A student doing failing work in a course may drop the class after the first three weeks if he has the approval of his adviser and the dean of his college and the teacher's signature. A grade of "WE" will be assigned for each class so dropped. A "WE" grade counts the same as an "E" grade in computing the grade-point average.
- c. If a student drops a class at any time during the semester without officially withdrawing, he will receive a grade of "UW" (meaning unofficial withdrawal) in each course so dropped. This will indicate that the student has failed to clear officially with the University. A "UW" grade counts the same as an "E" grade in computing the grade-point average.

**Withdrawal from Evening School Classes.** Students withdrawing from classes for which they have registered in the Extension Services office must do so by notifying that office and by completing the withdrawal forms. An evening school student who does not properly withdraw will receive a failing grade.

**Registration of Prospective Secondary Teachers.** All certificates for teaching, counseling, supervising, administration, special education, and library work in the public schools of Utah are granted by the State Department of Public Instruction.

When all requirements for state certification have been fulfilled, students of the University registered in any of its colleges or in the Graduate School will be recommended for certification by the dean of the College of Education. The President makes final decisions on all matters pertaining to education in the University. The President has assigned the dean of the College of Education to act in an administrative capacity as the representative of the University. The dean is assigned the responsibility to give final approval on all aspects of the teacher education program, including matters pertaining to general education, professional education, and teaching majors and minors. All students in the teacher certification program, regardless of their college registration, are required to have an assigned adviser in the College of Education to approve their programs.

Most students seeking an elementary certificate register in the College of Education. However, programs are available for majors in human development and family relationships and in speech correction to obtain an elementary teaching certificate.

Students desiring state certificates should make application with the dean of the College of Education through the Teacher Certification Office and not with the State Department of Public Instruction.

**Completion of Registration.** When the student has followed the prescribed registration procedure and has paid his fees, his registration is complete. The University will hold the student responsible for completion of the courses for which he has been enrolled, unless he obtains approval for a change in registration or files an official withdrawal from the University.

**Complete Withdrawal from the University.** Any student withdrawing from the University after the third week must be doing passing work in his classes if he is to discontinue without academic failure.

## Records

**Classification of Students.** At the beginning of each semester, regular students are classified for that semester as follows:

Credit hours earned	Classification
0 to 31	freshman
32 to 62	sophomore
63 to 93	junior
94 and over	senior

Engineering students having more than 124 semester hours are classified as fifth-year professional students.

Completion of the required courses in freshman composition is prerequisite to classification as a junior.

A student who has met the entrance requirements but who registers for nine hours of work or less will be classified as a part-time student.

A regular student who has completed all requirements for the bachelor's degree is classed as a graduate student. A graduate student or a student holding a bachelor's degree from a four-year accredited institution may register at Brigham Young University as follows:

- a. In the Graduate School under the regular requirements for an advanced degree.
- b. In the Graduate School as a nondegree-seeking student.

Admission procedures to the Graduate School are indicated in the Graduate School Catalog and apply to those who have graduated from Brigham Young University as well as from other universities.

**Credits.** A student may have credit entered on the books of the University as follows:

- a. For work done in the regular courses offered by the institution.
- b. For courses taken by correspondence, in the evening school, or in the off-campus program. All such courses taken by a currently enrolled student **must** have the approval of the student's dean and will be considered part of his current semester load. Students will be held responsible for any unauthorized overload for which they register, and such credit will not be allowed.
- c. For work done in an accredited college when such credit is to be used for graduation from Brigham Young University. Credit from other schools should be filed with the Office of Admissions and Records upon application for admission to the University.
- d. By passing a satisfactory examination in any course offered by the University. Such credit will be given only with the consent of the head of

the department concerned, the dean of the college in which the student is registered, and final approval for recording by the Office of Admissions and Records.

A fee of \$7.50 per credit hour is charged for special examinations provided the total fee for any one subject does not exceed \$45.00.

By payment of an auditing fee a student may obtain permission to audit courses of instruction. Under no circumstances may credit be obtained by means of special examinations for courses which have been audited.

## Grading System

The present grading system uses the letters A, B, C, and D, to indicate that the student receives credit, and E to indicate that no credit is allowed.

The "A" grade is given only to students whose intellectual capacity and actual academic achievement are of exceptional quality. Work of a quality somewhat higher than average but not of exceptional quality receives a "B." "C" indicates that the student has completed classroom work, outside assignments, and examinations in an average manner.

Students who fail to reach the average academic achievement, but who do work of a quality still acceptable to the University are given a "D" grade. A "D" grade draws credit even though the work done is not fully satisfactory. Students failing to achieve work of minimum university quality receive an "E" grade. This grade mark draws no credit.

If a student withdraws officially from a class during the first three weeks of a semester, the permanent record will show no registration for that class.

If a student properly withdraws from a class between the third and twelfth week, his record will be marked "W" if he is passing in the course and "WE" if he is failing the course.

If a student discontinues attending a class at any time during the semester without going through the official withdrawal procedure, he will receive a grade of "UW" (unofficial withdrawal). A "UW" has the same negative value as an "E" in computing a grade-point average.

Students withdrawing after the third week who cannot present a valid excuse for being absent from class prior to withdrawal are graded "UW" if they do not withdraw officially and "WE" if they withdraw officially.

The letter "I" (incomplete) is used to indicate that the work is not yet completed. It is given **only** when special arrangements for the completion of the specific work involved have been made between teacher and student. The "I" never is given when the student has failed or is failing the course. A grade of "I" changes automatically to "E" in the Office of Admissions and Records unless the work is completed within one year from the date the grade is given.

When a thesis or dissertation has been completed, any one of the following marks may be given: (1) "F" for failure; (2) A specific grade indicating that the thesis is acceptable to the department on a credit basis; or (3) "G" when the thesis has been satisfactorily completed but where the department desires to register no grade for credit. The letter "P" (passed) is used only in connection with the student teaching program of the College of Education of the University.

Once recorded in the Office of Admissions and Records, no final grade shall be changed except to correct the record when an error in calculation has been made by the teacher, in posting by the Data Processing Department, by the Office of Admissions and Records, or by action of the Academic Regulations Committee. When such corrections need to be made, an official "Teacher Grade Change Authorization" form must be filled out; signed by the teacher, the chairman of the department, and the dean of the college; and sent directly to the Office of Admissions and Records.

Semester grade reports are mailed to all students at the end of each semester. It is also the policy of the University to send semester grade reports to the parents of all single freshman students under twenty-one years of age and all unmarried students who are on academic probation.

## Graduation

**Two-Year Certificates.** A two-year certificate is awarded by the University in the fields of agriculture, business, engineering, genealogy, and industrial technology.

**Baccalaureate Degrees.** The University confers the baccalaureate degrees of Bachelor of Engineering Science, Bachelor of Science, and Bachelor of Arts in the various academic colleges.

**Advanced Degrees.** Requirements for master's and doctor's degrees conferred by the University are described in the Graduate School section of this catalog.

Doctor's degrees are awarded by the University in the fields of chemistry, Bible and modern scripture, educational administration, educational psychology, geology, history, history and philosophy of religion, human development and family relationships, musicology, physics, psychology, and sociology.

**Minimum Requirements.** To be admitted to candidacy for a two-year certificate or a degree, a student must have a scholastic record which shows that he has satisfied the entrance requirements to the University and that he has met all other necessary provisions.

In order to become a candidate for a baccalaureate degree, a student must maintain at least a 2.0 (C) cumulative grade-point average. He also must earn a minimum of thirty semester credit hours on the Brigham Young University campus at Provo for a bachelor's degree.

The following graduation requirements apply to all candidates for a Bachelor of Arts or a Bachelor of Science degree from any of the colleges of the University:

Total amount of credit .....	128 semester hours
Upper division credit (minimum) .....	40 semester hours
Requirements for a major .....	20 or more semester hours
Minimum requirements for a minor .....	14 semester hours

A candidate for a Bachelor of Arts degree is required to furnish training equivalent to sixteen semester hours of college credit in one foreign language. A candidate for a Bachelor of Engineering Science degree must complete the required courses in one field of engineering and must have a total of 154 semester hours of credit.

**Major and Minor Requirements.** At the time of his graduation the student must have completed at least 20 semester hours in his major department. He also must have completed a minimum of 14 semester hours in collateral or minor subjects selected from courses approved for this purpose by the department or departments offering these courses, and approved by the chairman of his major department.

If approved by the Curriculum Committee, a minor may be distributed over more than one department.

**Credit Restrictions.** Not more than twenty-four of the total hours required for the baccalaureate degree may be correspondence credit.

Not more than eighteen hours of "D" grade credit may be applied toward graduation.

All incomplete grades must have been removed from the candidate's record at least four weeks prior to graduation.

**Junior English Proficiency Examination.** Each student with more than sixty semester hours of credit who has completed his freshman composition requirement must take the Junior English Proficiency Examination during the first semester he is eligible for it. If he fails this examination, he must take a non-credit remedial course during the next semester he is a full-time student to correct his deficiencies before he may take the examination again. Passing this examination is a graduation requirement.

Since each student should have completed this examination requirement during his junior year, application for graduation will not be considered until the applicant has passed the Junior English Proficiency Examination. The examination is scheduled six times each year: the Saturday of the first full week of each semester, of each second term of the semester, and of each term of summer school.

**Application for Graduation.** Application for graduation is made by obtaining the appropriate form from the Office of Admissions and Records. Those students expecting to graduate in June should file the completed form with the Office of Admissions and Records not later than January 15, and candidates for August commencement, not later than March 15.

**Attendance at Commencement.** Each individual graduating from the University must attend the commencement exercises unless officially excused under the authority of the President of the University. The request to be excused must be presented in writing at least two weeks prior to commencement—extreme emergencies of either illness or death in the family being the only exceptions to this requirement. Students not officially excused from commencement will not be graduated until they attend a later commencement in person.

**Change in Graduation Requirements.** The University reserves the right to change the requirements for graduation, and a candidate for graduation will be required to comply with all changes pertaining to the uncompleted portion of his course.

**Revised Requirements for Freshmen entering First Semester 1962 and Thereafter.** Beyond the general education requirements outlined below, all students graduating from B.Y.U. are required to complete an additional nine semester hours: either (a) training equivalent to twelve semester hours of college credit in one foreign language, three of which may be counted as general education credit in humanities (hence a nine-hour addition); or (b) training equivalent to nine semester hours of college credit in specified mathematics, statistics, logic, and science courses which will aid the student in developing precision in thinking, especially in quantitative thinking. Completing either (a) or (b) shall qualify a student for either the B.A. or the B.S. degree, whichever is appropriate to his area of study. Any departure from this requirement for certain departments of the University because of special accreditation or certification requirements must be approved by the Curriculum Committee and the administration.

**General Education Requirements.** All candidates for a bachelor's degree must fill the group requirements listed below under the topic "General Education Program."

## Scholarship Recognition

In acknowledgment of outstanding scholarship, academic recognition is granted to certain bachelor's degree candidates. The announcement of such awards is made at the annual commencement exercises.

There are two designations in recognition of high scholarship: graduation *magna cum laude* and graduation *cum laude*. The award of *cum laude* is made on the basis of excellence shown in work up to, but not including, the second semester of the senior year.

A student receiving either type of recognition must rank among the highest ten per cent in his graduating class. Graduation *magna cum laude* is awarded to the highest three per cent. Graduation *cum laude* is given to the next seven per cent. This rating is determined by computing a grade-point average as follows: each credit hour of "A" counts 4; each credit hour of "B" counts 3; each credit hour of "C" counts 2; each credit hour of "D" counts 1; "E" counts 0. The total number of points is computed and is divided by the number of credit hours carried.

The University will post and publish at the close of each semester of the regular school year the names of the students who have carried a minimum of 15 credit hours and earned a grade-point average of 3.5 or above in all classes.

Those with grade-point averages of 3.8 and above will be given special recognition.

## General Education Program

All students entering B.Y.U. since the first semester of 1960 are expected to complete the new program of general education requirements. Other students may complete either the new program shown here or the old program outlined in the 1959-60 General Catalog. These students may choose either program but may not combine the two. All students graduating after August 1963 will be expected to have completed the new program.

**Transfer Students.** At Brigham Young University a student has completed the general education requirements except in religion and American history and government if he has graduated from any accredited, two-year collegiate institution having a pattern of general education similar to that at B.Y.U., provided that he presents satisfactory evidence of having completed these general education requirements. Also, a student has completed the general education requirements except religion and American history and government if he transfers to Brigham Young University from an accredited, four-year college or university having a pattern of general education similar to that at B.Y.U., provided that he presents satisfactory evidence of having completed the general education requirements of his former college. Other transfer students will have their transcripts audited in terms of the B.Y.U. program and will be notified prior to or during their first semester at B.Y.U. as to what remains to be completed.

### Requirements

	Semester Hours
American history and government .....	3
Biological science .....	6
English composition .....	6 or 4
Health .....	2
Humanities and fine arts .....	8
Physical education .....	2
Physical science .....	6
Religion (2 hours per semester in residence) .....	16
Social science .....	5

**American History and Government.** This requirement, which applies to all candidates for the bachelor's degree, may be satisfied by examination or by course work. Every student entering the University takes a placement test covering both American history and American government. Students showing highly superior preparation are exempted from course work under the requirement. All other students take History 170, except as provided below.

Students majoring or minoring in history, political science, economics, finance and banking, journalism, or secondary education (social science) take whichever of the following combinations is recommended for their field; History 120 and 121; History 121 and Political Science 110; or Economics 274 and Political Science 110. Other students also may elect these combinations instead of History 170. For general education group-filling purposes a student taking one of these combinations may elect to apply either of the courses to the American history and government requirement and the other to the general education category in which the course is regularly listed.

Transfer students desiring to offer work from other institutions in satisfaction of all or part of this requirement should consult the History Department.

**Biological Science.** To satisfy the general education requirement in the biological sciences, six or more semester hours of college credit are required. At least two departments should be represented, and at least one of the courses must have a weekly laboratory period. Courses which fulfill this group requirement are listed below:

- |                      |                              |
|----------------------|------------------------------|
| Bacteriology 121 (3) | General Bacteriology         |
| Bacteriology 311 (2) | Sanitation and Public Health |

Bacteriology 321	(3)	General Microbiology
Bacteriology 322	(1)	General Microbiology Laboratory
Bacteriology 331	(4)	Microbiology
Botany 101	(3)	Plant Biology
Botany 105	(3)	The Plant Kingdom
Botany 176	(3)	Heredity
Botany 205	(2)	Field Botany
Botany 376	(3)	Genetics
Botany 450	(3)	Plant Ecology
Botany 460	(2)	Conservation of Natural Resources
Zoology 105	(3)	Animal Biology
Zoology 176	(3)	Heredity
Zoology 212	(4)	Invertebrate Zoology
Zoology 213	(4)	Vertebrate Zoology
Zoology 261	(4)	Human Anatomy & Physiology for Nurses
Zoology 315	(3)	Natural History
Zoology 376	(4)	Genetics

**English Composition.** The requirement is six semester hours for the majority, and four semester hours for the superior group selected by testing for English 115 or 116, or three semester hours for Honors Program students in English 118.

**Health.** The requirement is two semester hours, Health 130, to be taken either semester of the freshman year. For students presenting evidence of superior preparation, the requirement will be waived. This is determined by an examination prepared by the Department of Health and Safety Education. Students must register for the class and then petition for the examination. Veterans with at least one year's service are exempt from this requirement. Nurses who complete Nursing 202 and 212 are also exempt.

**Humanities and Fine Arts.** The requirement is eight semester hours. Of the eight hours the student must take three hours in literature and course work in at least two other departments. A full year's beginning course of eight semester hours in a foreign language shall carry three semester hours toward the satisfaction of this group requirement and may reduce the requirement in literature to two semester hours.

Archaeology 200	(2)	Introduction to Archaeology
Archaeology 380	(3)	Old World Archaeology: Historic
Art 101	(2)	Introduction to Art
Art 108	(2)	General Art
Art 110	(2)	Design in Everyday Life
Art 306	(3)	Art History and Appreciation
Art 307	(2)	Contemporary Art
Art 308	(2)	American Art
Art 403	(2)	Ancient and Primitive Art
Art 405	(3)	Medieval and Renaissance Art
Dramatic Arts 121	(3)	Voice, Diction, and Interpretation
Dramatic Arts 315	(2)	Introduction to the Theatre
Dramatic Arts 316, 317	(3 ea.)	Theatre History
Economics 274	(3)	Economic and Financial History of the United States
English 250	(3)	Introduction to Literature
English 252	(2)	Introduction to Poetry
English 253	(2)	Introduction to Drama
English 254	(2)	Introduction to Biography
English 256x	(3)	Classic Myths
English 260	(3)	Masterpieces of American Literature
English 270	(3)	Masterpieces of English Literature
English 282	(2)	Shakespeare
English 331, 332, 333	(2 ea.)	The English Novel

- English 335, 336 (2 ea.) The American Novel  
 English 338 (3) The European Novel  
 English 345 (3) The Spirit of Tragedy in Literature  
 English 346x (2) Greek Life and Drama  
 English 350 (2) The Bible as Literature  
 English 355, 356, 357, 358 (3 ea.) World Classics  
 English 359 (2) The Short Story  
 English 361, 362, 363 (3 ea.) Early American Literature, American Renaissance, and Later American Literature  
 English 366 (2) Modern Poetry  
 English 367 (2) English and American Folk Poetry  
 English 371, 372, 373, 374, 375 (3 ea.) English Literature: to 1500; 1500 to 1660; 1660 to 1780; 1780 to 1832; 1832 to 1900  
 English 376 (2) Twentieth Century English Literature  
 English 382 (3) Shakespeare  
 English 481 (3) Chaucer  
 English 483 (2) Milton  
 English 487 (2) Matthew Arnold
- History 110 (3) World Civilization I  
 History 111 (3) World Civilization II  
 History 120 (3) The United States to 1865  
 History 121 (3) The United States since 1865  
 History 300 (2) The Early Oriental History  
 History 304 (3) Greek History and Civilization  
 History 307 (3) Roman History and Civilization  
 History 311 (3) History of the Middle Ages  
 History 312 (3) Renaissance and Reformation  
 History 323 (2) Europe in the Twentieth Century  
 History 334 (3) Spain  
 History 335 (3) England  
 History 340 (3) Asia  
 History 352 (3) History of Latin America II  
 History 373 (2) American Intellectual and Cultural Growth  
 Humanities 101 (3) An Introduction to the Humanities
- Journalism 101 (2) Introduction to Mass Communication  
 Journalism 410 (3) History of Mass Communication
- Music 101 (3) Introduction to Music  
 Music 103 (2) Survey of Music Literature  
 \*Music 484, 485 (3 ea.) History of Music
- Philosophy 380 (2) Survey of Philosophy  
 Philosophy 480 (3) Introduction to Logic  
 Philosophy 482 (2) Ethics—Plato to Dewey  
 Philosophy 484 (2) Types of Religious Philosophy
- Recreation 337 (2) Philosophy of Recreation
- \*French 441, 442 (3 ea.) Survey of French Literature and Culture I, Origins to 1800  
 \*French 443, 444 (3 ea.) Survey of French Literature and Culture II, 1800 to Present
- \*German 441, 442 (3 ea.) Introduction to German Literature and Culture  
 \*German 443, 444 (3 ea.) Introduction to German Literature and Culture
- \*Italian 431, 432 (3 ea.) Masterpieces of Italian Literature
- \*Latin 441, 442 (3 ea.) Survey of Latin Literature and Culture
- \*Portuguese 431, 432 (3 ea.) Masterpieces of Brazilian and Portuguese Literature

- \*Russian 431, 432 (3 ea.) Masterpieces of Russian Literature
- \*Spanish 351 (2) Hispanic Civilizations
- \*Spanish 441 (3) Survey of Spanish Literature and Culture
- \*Spanish 451 (3) Survey of Spanish-American Literature and Culture
- \*Spanish 454 (3) Spanish-American Novel
- \*Spanish 470 (3) The Narrative of the Golden Age

**Physical Education.** Two semester hours or the equivalent is the requirement. One-half credit hour should be taken each semester of the freshman and sophomore years. (The transfer equivalent is based on class hours of activity and not necessarily on credit hours.) **Exceptions:** (1) Students majoring in and completing the course in engineering science together with requirements for an air science commission are not subject to the physical education requirement. (2) Engineering science students who withdraw from the air science program after two years are exempt from 1 semester hour of physical education. (3) Veterans with at least one year of full-time military service are exempt from the physical education requirement.

Any 100-series course in physical education will count toward satisfying general education requirements in physical education.

**Physical Science.** Six semester hours are required. Students successfully completing one of the prescribed curricula in the College of Physical and Engineering Sciences will have filled this requirement automatically. Others may choose either of the following options.

**Option 1:** At least one course must be selected from each of two of the following three departmental course offerings. A minimum of six semester hours is required.

- Chemistry 100 (2) Elementary College Chemistry
- Chemistry 101 (5-4) Introductory Inorganic Chemistry (for family living, nursing, and related fields)
- \*Chemistry 102 (5-4) Introductory Organic Chemistry (for family living, nursing, and related fields)
- \*Chemistry 105, 106 (4 ea.) General College Chemistry (designed for engineering students)
- \*Chemistry 111 (4) Principles of Chemistry
- \*Chemistry 112 (3) Principles of Chemistry
- Geology 101 (2) Introduction to Geology
- Geology 102 (1) Introduction to Geology Laboratory (may be taken only if accompanying Geology 101)
- Geology 103 (3) Life of the Past
- Geology 111 (4) Physical Geology
- \*Geology 112 (4) Historical Geology
- Geology 306 (3) Geomorphology
- Physics 100 (3) Essentials of Physics
- Physics 105, 106 (3 ea.) Technical Physics
- Physics 127 (3) Descriptive Astronomy, "The Solar System"
- Physics 128 (3) Descriptive Astronomy, "The Stellar System"
- Physics 137 (3) Weather and Climate
- Physics 177 (3) Physics of Light and Photography
- \*Physics 201, 202 (4 ea.) General College Physics
- \*Physics 211, 213 (4 ea.) General Physics: Classical (designed primarily for physical science, chemistry, and engineering majors)
- \*Physics 212, 214 (1 ea.) General Physics Laboratory

**Option 2:** Physical Science 101, 102 (3 credits each), Concepts of Physical Science. The requirement in physical science may be met by completing both courses in this sequence. They must be taken in the order indicated, and preferably the same year, although this is not mandatory. No part of the credit thus earned can be used in fulfillment of Option 1. This sequence is particularly suitable

for students who have little background in science or mathematics but who wish to obtain an understanding of topics selected from all the fields of physical science. It should be of special interest to those majoring in elementary education or in nonscience areas of secondary education. For a more detailed description, refer to the physical science inter-departmental section of the general list of courses.

**Religion.** Two semester hours in religion are required for each full-time registration at B.Y.U. up to a total of sixteen semester hours. Part-time students are required to complete one semester hour in religion for each eight hours carried at B.Y.U.

- A. **Freshmen and transfer students commencing their first year at B.Y.U.** are required to take the following courses (See also "E" below):  
Scripture 121, 122 Introduction to the Book of Mormon
- B. **Sophomores and transfer students commencing their second year at B.Y.U.** may choose one of the following courses to satisfy the religion requirement (See also "E" below):

Bible 211, 212 Introduction to New Testament

History of Religion 241, 242 Latter-day Saint History

Theology 230, 231 The Gospel in Principle and Practice

Theology 232, 233 Missionary Approach to the Gospel

Theology 234, 235 Missionary Approach to the Gospel in French

Theology 236, 237 Missionary Approach to the Gospel in German

Theology 238, 239 Missionary Approach to the Gospel in Spanish

- C. **Juniors and seniors who have completed the required courses and transfer students commencing their third and fourth years at B.Y.U.** who have completed the required courses will complete two semester hours in religion for each semester from the following courses (See also "E" below):

Bible 301, 302 Introduction to the Old Testament and Its Teachings

Bible 401 Israel's Prophets

Bible 411 Life and Teachings of Jesus

Church Administration 361 Genealogy

Church Administration 362 Genealogy

Church Administration 365 Applying Gospel Principles in Scouting

Church Administration 460 Priesthood, Church Government, and Welfare

History of Religion 441, 442 History and Doctrines of the Church

History of Religion 451 Christian History through the 15th Century

History of Religion 452 Christian History after the 15th Century

History of Religion 453 World Religions

History of Religion 454 Historical Setting of Mormonism

Scripture 324, 325 The Doctrine and Covenants

Scripture 327 Introduction to the Pearl of Great Price

Scripture 421, 422 History and Teachings of the Book of Mormon

Theology 331, 332 Analysis of L.D.S. Teachings

Theology 435 Mormonism and Modern Scientific Thought

Theology 438 Your Religious Problems

- D. See "Devotional Assemblies" in the "List of Courses" section of this catalog for application of devotional credit.
- E. **Following are rules regarding interpretation of University policy on general education religion requirements:**

**1. Freshman and Sophomore Registration.**

Although students at B.Y.U. may register for more hours in religion than required in the freshman and sophomore years and courses thus taken may count as elective credit toward graduation, no more than ten hours in religion can be accumulated in the freshman and sophomore years toward the fulfillment of the University general education requirement in religion. A student must complete six hours toward the University requirement during the junior and senior years, part of which may be satisfied by the devotional credit. Devotional credit does not satisfy the general-education requirement in religion until the third or fourth years in residence at B.Y.U.

**2. Transferees from L.D.S. Colleges.**

Transferees from Ricks College, the L.D.S. Business College, and the L.D.S. Church College in Hawaii have credit in religion appraised as if it had been taken at B.Y.U. so far as the above rule is concerned. However, such students may transfer no more than six semester hours for one year's work, or a maximum of ten semester hours for two years' work, toward the satisfaction of the general-education requirements in religion.

**3. Transcripts from Colleges having L.D.S. Institutes.**

Transferees from other colleges who present college transcripts of credit for Bible studies taken at L.D.S. Institutes of Religion shall receive full credit for such courses as if they had been taken at B.Y.U.

**4. Transcripts from L.D.S. Institutes.**

Transferees presenting institute credit in religion for courses other than those accepted by the adjacent college will be appraised as follows:

The credit will be accepted on transfer only (a) if the institute director certifies that the course was taken for college credit and was covered in accordance with college standards, and (b) if the student does not present more than the maximum number of hours acceptable at B.Y.U. for a single semester when combining his college and institute credit. If the combined credit earned at a college and institute in a given quarter or semester exceeds that permitted at B.Y.U. (See "Limitation on Credit in One Semester"), the student must indicate to the Office of Admissions and Records the courses for which he desires to receive credit up to the prescribed limit. (c) A student may not transfer to B.Y.U. from institutes more than six semester hours for one year's work or ten semester hours for two years' work toward the satisfaction of the general education requirement in religion.

**5. Application of Transfer Credit to B.Y.U. Requirements.**

Acceptable transfer credit (per items 2, 3, and 4, above) may be used to meet the requirement of sixteen hours, but until the combined acceptable transfer credit and the B.Y.U. credit total sixteen hours, two hours must be taken for each semester in residence at B.Y.U.

**6. Fifth-Year Students.**

Students taking a fifth year of college work will be held to the requirements of the catalog, namely two credit hours in religion for each semester in residence up to a total of sixteen semester hours.

**7. Two-Year Degree-Seeking Students.**

Students working toward special two-year degrees or certificates must satisfy the University requirement of two hours credit in religion for each semester they are in residence up to the maximum of sixteen semester hours.

**8. Special Students.**

Special students must present one hour of religion credit for each

eight hours of collegiate work completed as a special student. For any term in which such a student registers as a regular student (ten hours or more) he must present two hours of credit in religion. The special student should keep the ratio of one hour of religion for each eight hours of collegiate work completed as a special student current from year to year and shall be required to keep the ratio current at the end of every two-year period.

#### 9. Summer School.

A student is not required to register for a course in religion in Summer School; however, upon application for graduation he must present one hour of credit in religion for each full summer's work in which he registers for less than ten hours of credit, and two hours of credit in religion for each full summer's work in which he registers for ten or more hours of credit.

#### 10. Definition of an Undergraduate.

For the purpose of applying the above rules a student is considered an undergraduate until he has either received his undergraduate degree or has completed the requirements for graduation.

#### 11. Students Required to Study Off Campus.

Students who do part of their collegiate work off campus under the requirements of their respective departments are required to have two hours of credit in religion for such semesters only when the University provides opportunities for the taking of such courses.

#### 12. Bible Credit from Non-L.D.S. Colleges and Universities.

Transfer students coming to Brigham Young University and bringing Bible credit obtained from accredited non-L.D.S. universities and colleges will have this credit accepted by Brigham Young University, and it will be applied as elective credit toward the total of 124 hours required for graduation. However, regardless of the amount of Bible credit presented, it will not satisfy the general-education requirement in religion, such transfer students being required to obtain two hours in religious instruction for each semester in residence on the B.Y.U. campus.

**Social Sciences.** Five semester hours with course work in two areas are required.

Agricultural Economics 101 (3) Economics and Agriculture  
 Anthropology 101 (3) Introductory Anthropology  
 Anthropology 111 (3) Cultures of the World

Economics 101 (3) Introduction to Economics  
 Economics 111, 112 (3,2) Economic Principles and Problems  
 Economics 358 (3) International Trade and Finance  
 Economics 383 (2) Comparative Economic Systems

Geography 101 (3) Introduction to Geography  
 Geography 120 (3) Geography and World Affairs  
 Geography 231 (3) Economic Geography  
 Geography 351 (3) North America  
 \*Geography 441 (3) Political Geography  
 Geography 460 (3) Europe

\*Human Development and Family Relationships 210 (3) Child Development  
 Human Development and Family Relationships 360 (3) Achieving Success in Marriage  
 \*Human Development and Family Relationships 361 (2) Family Relationships

Political Science 105	(1)	Current Affairs
Political Science 110	(3)	American Government
Political Science 111	(3)	State and Local Governments
Political Science 112	(3)	Foreign Governments
Political Science 115	(3)	Introduction to International Relations
Political Science 210	(5)	The American System of Government (Honors Program)
Political Science 212	(5)	Comparative Governments and International Relations (Honors Program)
Psychology 111	(3)	General Psychology
*Psychology 320	(2)	Psychology of Childhood
*Psychology 321	(2)	Psychology of Adolescence (Either Psychology 320 or 321—not both—may apply.)
*Psychology 322	(2)	Psychology of Adult Life
*Psychology 350	(3)	Introduction to Social Psychology
Sociology 111	(3)	Introductory Sociology
Sociology 112	(3)	Social Disorganization
Sociology 125	(2)	Applied Sociology
*Sociology 350	(3)	Introduction to Social Psychology
Sociology 389	(3)	Social Aspects of Mental Health

\*These courses have prerequisites.

# University Fees

(Including Student Loans)

Although these figures are as accurate as possible at the time of the printing of this catalog, the University must reserve the right to change them without notice.

## General Fees

Regular College and Graduate Students:	1st Semester	2nd Semester	Total
Tuition .....	\$ 97	\$ 97	\$194
Building, gymnasium, student activity and health fees (required of all full-time students) .....	43	43	86
Total .....	\$140	\$140	\$280

## Special College and Graduate Students:

	Tuition	General Service*	Total
Minimum fee .....	\$22.50	\$ 4.50	\$27.00
Three credit hours .....	31.00	6.00	37.00
Four credit hours .....	39.50	7.50	47.00
Five credit hours .....	48.00	9.00	57.00
Six credit hours .....	56.50	10.50	67.00
Seven credit hours .....	65.00	12.00	77.00
Eight credit hours .....	73.50	13.50	87.00
Nine credit hours .....	82.00	15.00	97.00

A student taking nine semester hours or less is considered a special student.

The charge for auditing courses is the same as taking them for credit.

A fraction of an hour is counted as a full hour for assessing fees.

\*The general service fee does not include health service or student activity privileges.

## Payment of Fees

All students who register will be expected to pay full tuition and fees prior to or at the time of registration.

## Late Registration Fee

Late registration fees will be assessed all regular and special students for failure to complete registration on scheduled dates. No exception is made regardless of reason for being late.

Failure to complete registration on scheduled dates.

1. First five regular school days following the scheduled  
registration date ..... \$ 5.00
2. After the fifth day following scheduled registration date ..... 10.00

Late fees for special students will be assessed at 50 per cent of the rate for regular students.

Any student whose check is dishonored by his bank will be charged the late fee in effect at the time the check is redeemed.

### Refunds—College Students

In the event of withdrawal by a student, a refund will be made on the basis of a charge of \$10 (\$5 for a special student) even though the student does not complete registration or attend school, plus a per day charge of 1.4 per cent of the total tuition and fees paid or payable for the semester. The days charged for will be the school beginning with the first day of the semester in which classes were held following the date on which the student registered, to the day on which the student reported his withdrawal to the Office of the Dean of Students, both days inclusive.

Any refund due a student because of withdrawal from school will be made only by check, through the mail, two weeks from the date on which the student reported his withdrawal and surrendered his receipt or activity card to the Office of the Dean of Students.

No refund will be granted to a student who is requested to withdraw for scholarship or other causes.

No refunds will be made directly to unmarried students under twenty-one years of age unless the student has the written permission of his parents or legal guardian.

### Miscellaneous General Fees and Fines

Graduation fee, bachelor's degree (only 50% refundable if degree is not obtained) .....	\$ 10.00
Graduation fee, master's degree (only 50% refunded if degree is not obtained) .....	20.00
Late application for graduation (for those who apply after January 15 for June commencement and after March 15 for August commencement) .....	3.00
Graduate student service fee (for graduate students using University facilities without formal registration for University classes) .....	27.00
General College two-year terminal certificate .....	5.00
Late orientation fee (charged all freshman and sophomore students registering at the University for the first time who do not report to the campus at indicated time on the officially scheduled day for placement tests and orientation work preliminary to registration day) .....	3.00
Identification photo .....	.50
Change of registration fee, for each change slip presented after the first week of each semester .....	1.00
Change of grade fee (unless the change is the responsibility of the University) .....	3.00
Examination, special equivalency, per credit hour (the maximum fee in any one subject shall not exceed \$45) .....	7.50
Duplicate activity card .....	1.00
Transcript fee .....	1.00
(\$1.00 for first copy on every order, plus \$.50 for each additional copy)	
Automobile registration and parking fee:	
Beginning of school year .....	5.00
Beginning of Second Semester .....	3.00
Traffic violation fines .....	1.00 to 5.00
Thesis binding (4 copies) .....	11.00 to 13.00

Registration in Evening School. (All daytime students will be required to pay an additional fee of \$3 per credit hour for all hours carried under the Evening School Program.)

**Fees for Instruction in Music**

Reservation for private music instruction, arranged by the student with the teacher concerned, is made by the semester only. Payment of the fee in full is made only at the treasurer's office at the time of registration or prior thereto.

(15 lessons per semester)

Ballou, Richard .....	\$55.00	Madsen, Franklin .....	50.00
Bos, Jacob .....	50.00	Mathews, Arminta .....	55.00
Bradley, Adine .....	60.00	Melville, Ruth .....	45.00
Bradshaw, Merrill .....	55.00	Meredith, Ned .....	70.00
Cannon, Clawson .....	55.00	Nelson, Elmer E. ....	55.00
Cundick, Robert M. ....	55.00	Nibley, Reid .....	80.00
Curtis, Brandt .....	55.00	Nielsen, Flora L. ....	50.00
deJong, Gerrit, Jr. ....	70.00	Nordgren, Quentin R. ..	50.00
Earl, Don .....	60.00	Richards, Helen C. ....	45.00
Fitzroy, George W. ....	50.00	Sardoni, Lawrence .....	55.00
Foster, Eugene .....	70.00	Stott, Douglas .....	55.00
Freed, David B. ....	70.00	Smiley, Beryl J. ....	55.00
Goodman, Harold .....	55.00	Terry, Elvis B. ....	50.00
Halliday, John R. ....	70.00	Wakefield, J. Homer ..	50.00
Keeler, J. J. ....	55.00	Warren, Charles .....	50.00
Laycock, Harold R. ....	60.00	Weinzinger, Kurt .....	55.00
Laycock, Ralph G. ....	60.00	Woodward, Margaret ..	50.00
McMurdie, Maughan W. ..	50.00	Woodward, Ralph .....	55.00
Madsen, Florence J. ....	55.00	All graduate assistants ..	45.00

**Refunds—Fees for Instructors in Music**

Students who withdraw from registration for private instruction before the semester begins or during the first week of the semester will receive a refund of the total amount paid.

Students who withdraw after they have begun their private instruction will be charged 10 per cent of the total fee, the full cost of each lesson taken or each lesson missed without notifying the teacher, and one-half the cost of the remaining lessons in the course.

Applications for refunds are made at 255 College Building.

**Fees for Private Instruction in Speech**

(15 lessons per semester)

Bateman, LaVar .....	\$38.00	Jex, Lorin .....	38.00
Boren, Robert .....	38.00	McKinlay, Lynn A. ....	38.00
Clinger, Morris M. ....	38.00	Mecham, Merlin J. ....	38.00
Gledhill, Preston .....	38.00	Morley, Alonzo J. ....	38.00
Hansen, Harold I. ....	38.00	Rich, Owen S. ....	38.00

**Fee for Speech Clinic**

An out-patient fee of \$40.00 per semester is charged for rehabilitation service in the speech clinic. Such service is offered regularly enrolled students without charge.

**Fees for Departmental Facilities and Services**

English 15 (Remedial English for juniors) .....	\$15.00
Food and Nutrition 240, 340 (Menu planning—meal service) .....	4.50
Health Education 110 (Driver education) .....	10.00
Horticulture 112 (Flower arrangement) .....	10.00
H.D.F.R. 322 .....	4.50

H.D.F.R. 422 .....	9.00
Instruction (Elementary) 449 .....	45.00
Instruction (Secondary) 479 .....	45.00
Music 368, 370, 372 (Woodwind, brass and string workshops) .....	5.00
Nursing 211, 212 (Fundamentals laboratory) .....	1.50
Physical Education 127 (Bowling—payable directly to bowling alley. Covers all expenses.) .....	11.00
Physical Education 135, 136 (Skiing) .....	10.00
Physical Education 137 (Hiking) .....	5.00
Physical Education 138 (Outing activities) .....	5.00
Physical Education 160, 161 (Swimming) .....	10.00
Physical Education 164 (Life saving) .....	10.00
Physical Education 165 (Water safety instruction) .....	10.00
Physical Education 166 (Canoeing) .....	7.50
Physical Education 233 (Sports fundamentals) majors—men .....	6.00
Physical Education 235 (Sports fundamentals—swimming) majors—men..	10.00
Physical Education 543 (Athletic conditioning and injuries) .....	2.50

### Rentals

Organ rental, one hour each day, per semester .....	\$15.00
Harpsichord, clavichord rental, one hour each day, per semester .....	10.00
Harp rental, one hour each day, per semester .....	10.00
Piano rental, one hour each day, per semester .....	7.50
Each additional hour each day, per semester .....	6.00
Practice room without piano, one hour per day, per semester .....	4.50
Each additional hour each day, per semester .....	3.00
Recorder rental, per instrument, per semester, tenor and bass .....	3.00
Recorder rental, per instrument, per semester, alto .....	2.00
Recorder rental, per instrument, per semester, soprano .....	1.00
Locker rent (McKay Building and Eyring Science Center):	
1 semester .....	1.50
2 semesters .....	2.50
2 semesters and Summer Session .....	3.00
Key deposit .....	1.00
Replacement of lost key .....	1.00
Locker rent (for high school students, Education Building) school year ....	1.50

Fifty cents is returnable on return of key. If students share a locker, there is an additional 50c for each additional key issued. The 50c for each key is refunded on return of key.

### Deposits

Gymnasium towel check and padlock deposit (Maximum refund is \$2.50) ..	\$ 3.00
Botany 175 (Microtechniques) .....	2.00
Botany 550 (Plant physiology) .....	2.00
Botany 706 (Experimental ecology) .....	2.00
Botany 712 (Plant nutrition) .....	2.00
Industrial education .....	1.00
Chemistry (Each laboratory class) .....	1.00
Civil Engineering 202, 203, 204 .....	1.00
Air Science (All AFROTC students. Fifty cents will be retained for flight insurance.) .....	14.00

**Fees for Lab Schools****Secondary Schools**

Senior high school—10th, 11th, and 12th grades .....	\$35.00
Junior high school—7th, 8th, 9th grades .....	25.00
Special students in secondary laboratory school, per unit .....	9.00

Secondary laboratory school students who register any time during the first semester shall pay the full year's fees.

**Elementary Schools**

Kindergarten to the sixth grade, for the full year .....	\$20.00
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Elementary laboratory school students who register any time during the first semester shall pay the full year's fee.

**Late Fee in Laboratory Schools**

A late fee of \$2.00 will be charged all junior and senior high school students who register after the first week.

A late fee of \$1.00 will be charged all elementary training school students who register after the first week.

**Refunds—Laboratory Schools**

A refund of \$25.00 will be made to any senior high school student who withdraws during the first or second week of the first semester. A refund of \$15.00 will be made to any student who withdraws after the second week and at or before the end of the semester, but no refund will be made thereafter.

A refund of \$15.00 will be made to any junior high school student who withdraws during the first or second week of the first semester. A refund of \$10.00 will be made to any student who withdraws after the second week and at or before the end of the first semester, but no refund will be made thereafter.

A refund of \$5.00 will be made to any elementary training school student who withdraws before the beginning of the Christmas holidays, but no refund thereafter.

No refund will be granted to a student who is requested to withdraw for scholarship or other cause.

The activity or receipt card must be surrendered when a refund is received.

**College of Family Living Nursery School**

(Pre-school laboratory operated by the Department of Human Development and Family Relationships)

Fee per child, per semester .....	\$30.00
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Arrangements for registering students in the pre-school laboratory should be made with the Department of Human Development and Family Relationships prior to payment of fees.

**Student Loans and Financial Aids**

A student entering the University should have made financial arrangements to cover his school expenses and should have on hand enough funds to cover his obligations during the first semester. Limited funds are available to help students remain in school when financial emergencies have arisen and personal or family resources are not available.

**Short-Term Loans.** Short-term loans are available for emergency assistance for tuition, books, fees and other school expenses to full-time day students who have completed at least one quarter or one semester of successful work at B.Y.U. These loans are made in small amounts for immediate requirements. Repayment

usually is required within the current semester. Such loans are intended primarily for students who will have sufficient resources to carry them through the year but who may not have these resources available early enough to make the required payments for tuition, books, fees, and other school expenses.

**Church Student Loan Fund.** The Church of Jesus Christ of Latter-day Saints makes aid available through a long-term loan program by which loans may be made to worthy full-time L.D.S. students who have completed at least one quarter or one semester of successful work at B.Y.U. and who are in critical financial need for tuition, books, fees, and other school expenses. Loans may be made each year in amounts not in excess of \$200 for freshmen, \$400 for sophomores, \$500 for juniors, \$500, for seniors, and \$500 for graduates. The maximum cumulative loan to any student cannot exceed \$2,100. The student may be permitted to delay making repayment until after he discontinues his full-time status at B.Y.U.

**Special Student-Aid Fund.** Through the generosity of interested friends of B.Y.U., contributions have been made and a limited fund is available to aid deserving students who are in critical need of small amounts of money and who are unable to make repayment.

**Application.** Information regarding financial aids and application forms are available in the Financial Aids Office. Before aid is granted each applicant will be interviewed and careful consideration will be given to his needs.

### Estimated Cost of Attending B.Y.U.

The expense of a year's study at Brigham Young University is surprisingly reasonable. It will depend a great deal on how much a student can spend or wants to spend. Basic minimum costs for a two-semester school year are as follows:

Tuition .....	\$ 194.00
Building, student activity, health and gymnasium fees—\$43 per semester (required of all full-time students) .....	86.00
Books and supplies .....	70.00
Board and room (approximately) .....	600.00
Personal expenses .....	100.00
	<hr/>
	\$1,050.00

A nationwide study of the costs per year for college expenses at public and private colleges indicates average spending of \$1,600 per student. As a general rule private college costs are higher. This amount is over fifty per cent above comparable costs at B.Y.U.

The estimate of \$1,050 does not provide for an automobile or clothing or transportation from distant points. The cost will obviously vary with married or single students and with young men and young women. For those doing their own housekeeping, either on or off campus, the cost of board and room can be materially reduced. Some students without automobiles have spent for an entire year as little as \$750. Others with automobiles have spent in excess of \$1,500. Except for those who travel back and forth to their homes each day, an automobile is unnecessary and often a hindrance to proper study.

# Student Housing

Learning to live harmoniously with other people under the right kind of living conditions plays a vital part in a college education. Students living in groups, working, studying, and enjoying recreation together gain much from each other. The conversations, good fellowship, and activities experienced in group living contribute to a person's whole development. Participation in democratic, self-governing living activities brings about a phase of education which can be gained in no other way.

The Office of Student Housing, under the director of student housing, is established to assist students with their housing needs. It is located in the Abraham O. Smoot Administration and General Services Building. All inquiries or administrative problems relating to housing needs should be referred to this office.

## Campus Housing

### Residence Hall Supervision

Campus housing is organized into two areas: namely, men's and women's. Each area is under the supervision of a person with professional training and experience for this type of work. Under these individuals, each residence hall is directed by a competent adult head resident who lives in the hall. (This may be a couple or a single woman.) Assisting each head resident are several senior residents—mature, advanced students—who live with the student groups. This gives each student a very close contact with the residence hall staff. Each student is known personally by the staff and has someone immediately available to assist him with normal student problems. The residence hall staff carries out a residence hall program designed to provide each student with experiences in democratic self-government, development in acceptance of responsibilities that go with maturity and independence, and assistance in learning the art and science of human relationships in working and living with others. The staff assists the student to achieve a sense of belonging, and to develop social competence through planned social and recreational programs. Head residents are available for general counseling. They carry out the residence hall program in cooperation with other University academic services.

### Applications

A student who plans to enroll at the University and live in a University residence hall should make inquiry to the Office of Student Housing at the earliest possible date. A housing application form will be sent to each inquiring student. A \$10.00 application fee is required and should be enclosed with the completed application form when it is returned to the Office of Student Housing. A residence hall assignment and appropriate "agreement forms" are prepared on a basis of the date of receipt of the application form by the housing office and are mailed in the late spring and early summer.

### Acceptance to University

The validating of any campus housing reservation is contingent upon the student's official acceptance and admission to the University.

### Rental Agreements

A student planning to live in campus housing may expect to sign a rental agreement for the accommodations he will occupy. He should be prepared to live by the terms of this agreement once he has signed and returned it to the Office of Student Housing. Misunderstanding and financial loss can be avoided by a student if he will read and familiarize himself with the terms of the agreement before signing.

### Time of Arrival

Residence halls are not open to a student prior to the announced opening date, usually the day before freshman orientation. The University does not advise a student who is going to live in campus housing to arrive before that date. It is unwise for a student with nothing to do to live in a hotel or motel where there is no University supervision.

### Residence Halls for Women

Housing for 1,548 women is provided in 24 Heritage Halls. These are apartment-type buildings. Each apartment consists of a combination kitchen-dining-study room arrangement, three bedrooms and a bath. In addition, there are large living rooms, a recreation room, head resident apartment, and laundry and storage facilities in each building. Six girls occupy an apartment and live cooperatively, preparing their own meals. The apartments are completely furnished except for bedding, kitchen utensils, and dishes. The facilities are excellent and offer a high standard of living for college students. The approximate annual rate for these accommodations is \$250.00. Food is purchased cooperatively by the residents of each apartment.

Help in the homemaking experiences of budgeting, buying, meal planning, and the selection, care, and construction of clothing is available from specialists who are assigned to Heritage Halls. In addition, a specialist is available to assist students in planning social activities, developing recreational skills, and learning wise use of leisure time.

The University operates four residence halls for women where board and room are provided. These four halls, Amanda Knight Hall, Knight-Mangum Hall, Budge Hall, and Merrill Hall, house 880 students. The halls, completely furnished, provide every modern convenience, including well-planned food service. A trained head resident lives in each hall. The approximate annual rate for these accommodations is \$595.00.

Each woman student desiring to live on campus should consider carefully the type of accommodations desired in view of her economic needs, time available for activities within her housing situation, and type of experience desired. Agreements are made for the academic year, and moving from one type of accommodation to another during the year is difficult to arrange.

### Residence Halls for Men

Board and room services for 72 men are provided in Allen Hall which is located one block from campus. It provides sleeping rooms, dining hall, living and social room, study room, head resident apartment, and adequate laundry and storage rooms.

Board and room services for 1,170 men are provided in six new buildings known as Helaman Halls. These buildings form a beautifully designed residence hall development. There are five residence hall buildings conveniently grouped around an attractively planned and developed central building. Each residence hall accommodates 234 students, with two men sharing each bedroom. In addition, living rooms, study rooms, central shower areas, recreational rooms, adequate laundry and storage facilities, and a head resident apartment are found in each building. These halls provide some of the best student living experiences offered on any university campus. The central building features spacious dining rooms and a snack bar, providing the excellent food service for which B.Y.U. is noted. This building also contains beautiful living rooms, recreational areas, administrative offices, and other management facilities such as mail rooms and laundry and dry cleaning pick up stations. The approximate annual rate for these accommodations is \$595.00.

### Graduate Homes for Men

Board and room services for a limited number of single graduate men are available in large University homes used exclusively for graduate students. They are adequately equipped and provide for the specialized needs of the graduate student. The approximate annual rate for these accommodations is \$545.00.

### **Apartments and Homes for Married Students**

Family accommodations for 260 married couples and their children are provided in housing developments known as Wymount Village and Wyview Village. In addition to this, a new married-students' housing project is under construction that will house another 462 families. All units in married-students' housing are assigned according to family size.

The Wymount Village consists of 110 apartments (efficiency, one-bedroom and two-bedroom units). These buildings were acquired from the federal government and moved to their present site following World War II. The monthly rental rates approximate \$38.50 for the efficiency units, \$41.00 for the one-bedroom units, and \$43.50 for the two-bedroom units. These rates include utilities.

(Note: The Wymount Village project will be discontinued in the spring of 1963 to make way for campus growth and development. By this time, the new married-students' housing project will be completed and ready for occupancy.)

The Wyview Village consists of 150 prefabricated homes purchased in 1956 from a federal government air base and moved to a site adjacent to the campus. There are 100 two-bedroom and 50 three-bedroom homes. The monthly rental rates approximate \$50.00 for the two-bedroom and \$55.00 for the three-bedroom homes. In addition, each family pays for their electricity.

The new married-students' housing project will consist of 462 apartments. Of this number there will be 168 one-bedroom units, 264 two-bedroom units and 30 three-bedroom units. The new project will include 24 buildings, an administration building, and three laundries. A series of four buildings will form quadrangles with grass courtyards in the center. The various complexes will form a trapezoid around a park and family recreational area. The buildings, constructed on a lift-slab principle, will be of painted concrete block with extensive use of white cast stone grillwork and painted stucco paneling. Balconies or porches for all apartments will open on the courtyards. In addition to various numbers of bedrooms, apartments will have an all-tile bathroom, kitchen with modern appliances, including garbage disposal units, gas ranges and electric refrigerators, and an attractively decorated living room.

For the married family who wishes to live off campus, the Residential Housing Office can assist in finding a suitable apartment in the Provo community. Approximately 1,000 apartment units are available to married couples.

## **Residential Housing**

All students living off campus are required to live in University-approved housing. The Residential Housing Department of the Office of Student Housing maintains up-to-date listings of approved residences. This office is established to assist students upon their arrival in Provo to find suitable quarters if they desire to reside in the community.

Residential housing consists of apartments, rooms with kitchen privileges, board and room, and sleeping rooms located in homes in the community. These facilities are inspected by University representatives to see that they comply with established standards before they are approved for student occupancy. Through the cooperative efforts of landlords and the University, constructive action has been taken to raise the standard of student housing throughout the community. Before making any commitments for residential housing, students should make sure that the place in which they contemplate living has been approved by the University.

### **Rates**

Rates for residential housing accommodations vary with the type of service provided, and consequently only a general indication can be given here. Sleeping rooms rent from \$15.00 to \$25.00 a month. Apartment accommodations run from \$17.00 to \$25.00 per month per student. Board and room is available at the rate of \$55.00 to \$65.00 a month. Apartments for married students can be obtained at a rate of approximately \$45.00 to \$70.00 per month.

# Student Personnel Services

The Student Personnel Services offices are responsible for the welfare of students in the following areas of University life: academic standards, American Indian students adviser, counseling service, counselor for women, foreign students adviser, orientation, student health service, student organizations and social life, student publications, University standards, and veterans' affairs.

## Dean of Students

The dean of students is director of the Student Personnel Services. As such, he is expected to coordinate the agencies at work on student problems. He initiates and recommends to the President and the University Council needed policies and procedures in student life. It is his responsibility to administer the program recommended or approved by the President in the various areas of the Student Personnel Services.

## Assistant Dean of Students

The assistant dean of students is the director of counseling and advising services for the University. As such, he is director of the University Counseling Service which provides professional services as outlined in the Counseling Service description below. In addition, the assistant dean of students coordinates and provides leadership in the advising offered by the academic faculty, the housing staff, and other personnel of the University. His primary responsibilities are administering existing programs, providing training and education for counselors and advisers, and recommending policies and procedures in student counseling and advising for the University.

## Academic Standards

Students at Brigham Young University are expected to obtain the following minimum grade-point average for their particular class in school:

Freshmen (students who have accumulated 31 semester hours of credit or less) are required to maintain a 1.75 (C-) grade average in order to be considered in good academic standing.

Sophomores, juniors, and seniors are required to maintain a 2.00 (C) grade average on all work beyond the first 31 semester hours of credit.

A student receiving a degree from Brigham Young University must have earned a cumulative grade-point average of 2.00 or a 2.00 grade average on all academic work taken beyond September 1960 before he will be allowed to register for the final semester of work leading to a degree.

Grade-point averages are computed on this basis: "A" equals 4 grade points, "B" equals 3, "C" equals 2, "D" equals 1, and "E," "WE," and "UW" each equal 0.

Categories of academic status are as follows:

### Warning

A student whose B.Y.U. cumulative grade-point average is above 2.00 (C) but whose grade-point average for the last semester was below the minimum required (1.75 for freshmen and 2.00 thereafter) will receive academic warning.

### Probation

A student whose B.Y.U. record fails to meet the minimum requirement and whose record shows a shortage of grade points will be placed on academic probation. Probationary students are limited as follows:

1. Allowed to enroll for a maximum of 12 semester hours.
2. Not eligible for B.Y.U. scholarships, awards, grants, or student loans.
3. Restrained from participating in any activity such as student plays, musical programs, intercollegiate athletics, debate teams, cheer leaders, studentbody officers, etc., in which they represent B.Y.U. before the public.

### **Suspension**

Students will be suspended from the University, if at the end of any probationary semester their cumulative record at B.Y.U. shows a shortage of 12 grade points from that which is required (1.75 for the first 31 semester hours and 2.00 for all remaining hours), and their current semester grade average is also deficient.

A student, whether on probation or not, will be subject to suspension if the Academic Standards Committee at any time determines that he is deficient in his academic achievements.

Students transferring or readmitted to B.Y.U. on academic warning or academic probation will be subject to the same rules as students currently enrolled.

## **Tutoring Service**

The student who feels he might profit from special tutoring may contact Academic Standards, where he is helped in making contact with the tutor. Fees for student tutors range from \$.50 per hour for a student in a small group to \$1.50 per hour for individual tutoring. Limited free tutoring is offered by members of sophomore honorary societies.

## **American Indian Students Adviser**

American Indian students may receive special assistance through the Indian Education Program of the University. Such assistance includes both close personal advisement and financial aid through the Indian Education Award, administered directly by this office. Information and application forms may be obtained by contacting the adviser to Indian students.

## **Counseling Service**

The administrative officers at Brigham Young University are well aware that new students are faced with many problems as they begin their college life. The primary function of the Counseling Service is to help normal students make realistic decisions regarding their college careers. All entering students are expected to make an appointment with a counselor so that they may obtain their professional assistance. Counseling Service provides the following services for the University: (1) counseling—educational, vocational, and other personal problems; (2) psychiatric; (3) testing; (4) occupational information; and (5) help with study and reading skills. Counseling Service also cooperates closely with those who supervise the study and reading skills program and the University tutoring program.

**Counseling.** The counselors offer assistance to each student, helping him make wise decisions in educational, vocational, and personal problems. The mature student will accept responsibility for the decisions arrived at in such counseling sessions.

**Psychiatric Service.** Limited psychiatric service is available for students with serious emotional problems. A psychiatric team composed of a psychiatrist, a clinical psychologist, and a psychiatric social worker is available to make evaluations and recommendations concerning treatment. Limited psychiatric treatment is available for students who can be treated in a university setting. Such treatment is not available for all students, and referrals are often made to private agencies either in Utah or in the students' home towns. As is the case of all other counseling done in the Counseling Service, complete confidentiality is maintained.

**Testing Services.** Tests of achievement, ability, interest, and adjustment are given to all new lower division students. The data from these tests are used as a basis for counseling in educational, occupational, and personal problems. Although the basic tests are given to all new lower division students, upper division and graduate students may avail themselves of the tests. The testing service provides psychological test data for the use of counselors and registration advisers, placement tests for various academic groups at the University, and assistance in the preparation, administration, and scoring of subject-matter as requested by various departments in the University.

**Occupational Information Services.** A comprehensive, current collection of essential occupational information is maintained in the Counseling Service library. Current catalogs of the major universities and technical schools are also on file. These materials are available to all students seeking information about particular vocational opportunities or information about employment in general.

## **Counselor for Women**

Of special assistance to women students is a counselor for women. She is a member of the Student Personnel Services staff and the Counseling Service staff. The counselor for women is available throughout each day to assist women students in solving personal problems.

## **Foreign Students Adviser**

Services of the foreign students adviser are available to all students from countries outside of the United States. Alien students coming to the University should report first to his office where they are expected to clear with him.

## **Orientation**

The orientation program of Brigham Young University is designed to assist new students to become acquainted with the opportunities the University offers and to integrate their skills and abilities with these opportunities.

The processes employed in achieving this objective are:

- a. To help the student feel that he belongs; that he is a member of an institution interested in him as an individual; that the University is also interested in his reaction to his total college environment religiously, socially, and academically; and to feel that his relationships with his fellow students will be satisfactory.
- b. To help the student become more receptive to his learning experience. Discussion groups are employed as a tool to develop healthy attitudes toward the tools of learning and toward the academic courses.
- c. To assist in the initial registration. Faculty advisers are available during this time to help select major fields of study and plan courses.

## **Religious Opportunities**

Brigham Young University students have excellent opportunities for participation in religious activities. Among the means available are the following:

**Brigham Young University Stakes.** The Church is organized into three stakes. Each stake has several wards, each usually having between 200 and 300 members. The stakes and wards are organized specifically for students to provide maximum opportunity for active participation in the program of the Church. Spiritual growth and the development of a strong testimony are goals fostered by the stake and ward organizations, whose programs are closely integrated at all levels with that of the University.

All single students living away from home establish their membership records in one of the wards of the stakes. Married students not living in University housing may attend the University ward or the ward of their choice in the city. Membership records of students remain in the B.Y.U. stakes until they terminate their schooling at the "Y."

**Religious Organizations.** In addition to the stakes and wards on campus there are several organizations primarily religious in nature and also social and service groups. Membership in some of these organizations is limited to returned missionaries while others are open to any interested student.

**Devotional Assemblies.** Devotional assemblies, held each Wednesday, enable students to hear messages of spiritual power and depth from carefully chosen Church leaders. It is contemplated that during each year all members of the First Presidency and of the Quorum of the Twelve Apostles will address the student body in the Wednesday devotional assemblies.

## Student Health Service

The Howard S. McDonald Student Health Center on University Hill accommodates the health services, comprised of a large out-patient clinic and in-patient unit for cases requiring bed care. The center functions 24 hours daily, 7 days a week during school terms and is available to any regularly enrolled full-time student whose fees include these services for the semester in which he is registered. Summer students are included. Medical care to all eligible students is limited to the facilities and personnel in the health center.

The following services are provided without extra charge:

1. An initial complete physical examination, required of all entering students, performed at the health center and including screening chest x-ray, audiometry, and urinalysis. This examination is also mandatory for students re-entering after a two-year absence.
2. Consultation with general physicians and specialists, by appointment, in the health center during regular clinic hours, 8:30 a.m. to 4:30 p.m. This includes a specialty clinic in orthopedics, general surgery, gynecology, internal medicine, and chiropody, ear, nose, and throat.
3. First-aid treatment any time during the 24 hours of each day.
4. Immunizations as required for small pox, diphtheria, or typhoid.
5. Physical therapy as recommended by a health center physician.
6. Routine laboratory tests.
7. Seven days of bed care in any one semester in the health center, as recommended by a health center physician, after which a minimum charge of \$2.50 per day is made.
8. Within the limits of its personnel and facilities, and at the discretion of the director, the treatment of chronic disease suffered by students.

Some services require an additional charge and are supplied to the student at cost. These are:

1. Meals while the patient is in the center.
2. Drugs on prescription of a health center physician.
3. Special diagnostic laboratory tests.
4. Special immunizations, i.e., poliomyelitis, influenza, etc.
5. X-rays other than "screening" films. The health center regularly employs the technical personnel to take and a radiologist to interpret the x-ray films. The student pays only the cost of the materials.
6. After-hour calls made by a physician in the clinic. The student pays \$2.00, the health center \$3.00 for each call. For house calls, the charges are double, both for the student and for the health center.
7. Rental of crutches.

8. Immediate notification of parents or guardian by the health center when a student is taken ill.

Services not available:

1. Major surgery or off-campus hospitalization or medical care.
2. Dental service.
3. Obstetric service.
4. Eye refractions, glasses, prostheses, hearing aids, etc.
5. Routine physical examinations.

## Student Health and Accident Insurance Program

To complement the services of the Student Health Center a supplemental insurance program is offered, which is available to all full-time students. This voluntary program is fully endorsed by the University and provides for a wide range of medical services at minimal costs. All students not otherwise protected by a health insurance plan are urged to accept this excellent plan specifically designed for our students. Full details are available from the health center.

## Student Organizations and Social Life

Student activities are organized in such a way as to offer maximum opportunity for training in leadership and self-government and to provide a well-balanced program of individual and group development. Numerous student organizations have been set up to effectively realize such an objective. All student organizations on the campus conduct their affairs in accordance with a basic philosophy designed "to provide for a broad program of social, cultural, and recreational opportunities in which students are encouraged to participate." Membership is open to students who qualify and remain qualified according to the rules and regulations set up by each organization. All students are urged to become affiliated with some group and thereby derive the benefits that only group experiences can bring. In order to coordinate organizational activity, to eliminate duplication of effort, and to lend continuity from year to year, supervision of student organizations is provided by the dean of students through the office of the coordinator of student organizations.

**Associated Students.** Associated Students is an organization composed of all students who attend Brigham Young University and is presided over by officers elected by them. It seeks to develop interest on the part of every student in those activities which contribute to a more democratic "Y" spirit and to provide opportunities for all students to participate in a well-rounded program of out-of-class activities. However, no student is allowed to participate in out-of-class activity if he is either on academic or disciplinary probation or carrying less than a ten-hour academic class load. Through this organization, student traditions are kept alive and all interclass and intercollegiate activities are encouraged and unified. Social, forensic, dramatic, and musical activities are fostered under its management, and through it the students publish the *Daily Universe*, the *Wye Magazine*, the student directory, and the *Banyan*. The organization also functions as an auxiliary of University discipline through the activities of the Honor Council and the Inter-Organizational Council court system.

**Associated Men.** All men students registered are members of Associated Men. This organization is designed to promote specific interests of "Y" men and to foster a wholesome atmosphere on the campus. The executive council, consisting of three student leaders and a faculty counselor, supplemented by the twelve members of the "Y" Men's Council, forms the governing group.

**Associated Women.** Associated Women is an organization comprising all women registered in the University. Its purpose is to aid and foster all women's activities. The organization, advised by the counselor for women, is a member of the Western Division of the National Organization of Associated Women Students, which includes most of the universities and colleges in the United States.

**Class Organizations.** Members of the four classes and the Graduate School are organized for the purpose of developing common interests and class spirit as each class proceeds through the University and into the Alumni Association. Meetings of the classes are held periodically, with a limited number of social functions planned by class officers.

**Executive Council.** The Executive Council consists of the president, vice-president of social activities, vice-president of student relations, vice-president of cultural activities, and vice-president of finance.

**Student Senate.** The Student Senate is a legislative body consisting of representatives from the entire student body and representatives from the classes. The senate considers studentbody problems and initiates action for the welfare of the student body.

**Inter-Organization Council.** The Inter-Organization Council is an organization composed of representatives from student organizations to help govern organizational activities. It derives its authority from the Executive Council.

**Honor Council.** The Honor Council is a group of sixteen students appointed by the student senate. It functions as a counseling body with sub-committees to promote the honor system to which all students are expected to adhere.

### Geographical Organizations

Geographical clubs are organized to further social enjoyment and acquaintance among students from the same localities. They are particularly helpful to students during the early semesters of school, before these students have found their way into the other social activities of the campus. Such clubs also are helpful in maintaining a close bond of interest between the student and his home.

### Professional and Departmental Organizations

The University encourages organizations which have the specific purpose of bringing together persons of similar scholastic and professional interests and of rendering their work more pleasurable and profitable. Each group fosters the activities of the department to which it is allied. Eligibility requirements are those of departmental affiliation and general scholarship as determined by the individual organizations. Fees are reduced to a minimum. Each organization has a faculty sponsor.

### Service Organizations

There are on campus several organizations, both for men and women, the primary function of which is to render service to the University. Eligibility requirements are established by each organization, and each has a faculty sponsor.

### Student Assemblies

Throughout the academic year a student assembly is held each Friday at 10:00 a.m. as a part of the regular program of the University. The Friday hour set aside for outstanding student entertainment is an important part of student life and should likewise be a definite part of the student's schedule.

### Student Publications

Five student-edited publications are sponsored to give every student an opportunity to serve the student body and the University with published works. A full-time adviser of student publications serves to help in training students to develop their talents in addition to classroom training.

**Daily Newspaper.** The Daily Universe is published daily during the regular semesters of the school year and continues with the Summer Universe published

twice weekly during Summer Session. More than 60 students staff the editorial, advertising, reporting, photographic, and business positions necessary to publish the paper.

**Galaxy.** A magazine edited separately and distributed as part of the Daily Universe is published several times yearly. This is a publication designed to discuss opinions, ideas, and interpretations of items which the daily press is unable to explore fully.

**Yearbook.** The Banyan, named for an oriental tree which symbolizes widening friendships found on campus, is the students' photographic record of each year. Valuable training in writing, editing, photography, art, and publishing are gained by the 50 members of the staff necessary to publish a 400-page book.

**Magazine.** The Wye, published twice each year, contains student-written and edited poetry, stories, and other creative work. A small staff generally works on the production of the publication, but opportunity to contribute is open to all students. Several awards are given for the best art, photography, and writing published.

**Directory.** An annual directory of students and staff of B.Y.U. is published during the first semester each year. Compilation of directory material and sale of the book are handled by White Key, a women's honorary service organization. Other student help is needed in advertising sales and business operation under direct supervision of the adviser of student publications.

## University Standards

The maintenance of standards of honor and integrity, of graciousness in personal behavior, of Christian ideals in everyday living, of a high standard of morality, and of abstinence from alcohol and tobacco is required of every student. A student's having improper associates or visiting places of questionable repute will not be tolerated.

Any pronouncement of disciplinary measures made by the President of the University becomes a part of these regulations. Violations of regulations may make the offender liable to suspension or expulsion from the University.

## Veterans' Service

All veterans should have their military experience evaluated for credit by applying to the Office of Admissions and Records.

**Korean (P. L. 550).** Veterans who had active military duty any time after June 27, 1950, and prior to January 31, 1955, are eligible for veteran benefits under Public Law 550, 82nd Congress.

All veterans must begin their schooling under the Korean G.I. Bill within three years of their date of discharge or separation from the service. New veterans must make application for eligibility. This application can be made upon the veteran's first arrival at the University. It is necessary to bring a copy of veteran's release from active duty, DD 214. A certified copy of a marriage certificate and/or child's birth certificate are necessary for veterans claiming dependents.

Veterans transferring their G.I. benefits from other schools to B.Y.U. must bring a certificate of eligibility restricted to B.Y.U. This must be obtained by making application at the last school attended. Delay will be avoided by beginning transfer proceedings in advance.

**War Orphans Education Program (P. L. 634).** War orphans must bring a certificate of eligibility restricted to B.Y.U. before entering school under the War Orphan Program. This may be obtained by making application at the nearest Veterans' Administration Regional Office.

For further information concerning any educational benefits problem, please write to Veteran Coordinator, B-234 ASB, Brigham Young University, Provo, Utah.

# *Special Academic Programs*

## **Honors Program**

Robert K. Thomas, Director (D-243 ASB)

The Honors Program at Brigham Young University is a University-wide effort to provide special opportunities and direction for superior students. In supporting such a program the administration and faculty of B.Y.U. have sought to integrate honors work in the various colleges and make possible a more flexible approach to the complete education of its best students.

### **Objectives**

Honors work endeavors to discover the able student and stimulate him to make the most of his ability. Among the specific ways the superior student may be challenged are the following:

1. Waiving of general education requirements makes possible the most effective and flexible use of a student's preparation.
2. Cutting across departmental and subject area lines, where feasible, provides for broader, integrated learning.
3. Letting a student take any course for which he is reasonably well prepared allows for both acceleration and greater depth in a candidate's major field.
4. Independent research and experimentation help a student set goals which reflect his own interests and abilities.

In general, the Honors Program hopes to enrich, rather than shorten, the superior student's academic experience.

### **Organization and Administration**

The Honors Program is supervised by an executive committee and a director. Advisers, who guide the work of not more than ten honors candidates, are nominated by their departments in consultation with the executive committee. The student is expected to maintain close contact with his adviser throughout the four years, and the adviser reports periodically to the executive committee and the director as to the student's progress. It is hoped that a close, working relationship will develop between the adviser and candidate, for this in itself can be an integral part of the student's education.

### **Selection of Candidates**

The Honors Program hopes to serve as many students as possible. Practically, however, honors work must be limited to those who show unmistakable promise on the basis of interviews, tests, and performance.

Most candidates will request admission to the program by writing the director during their senior year in high school. Others may be recommended by their teachers or counselors and will be sent application forms on the basis of such recommendations.

Those currently attending B.Y.U., or transfer students, should ask to have a copy of their transcript sent directly to the executive committee at the time of application. A student may enter the program at any time, but normally he would not do so after the first semester of his junior year. All prospective candidates are expected to provide the executive committee with their scores on the

ACT (American College Testing Program), NMSQT (National Merit Scholarship Tests) or college board examinations. Most high schools have information on file as to when these tests will be given in a particular school or area. If, however, it is impossible for a candidate to take any of these before the summer preceding his enrollment at B.Y.U., he should write for special instructions.

### Curriculum of the Program

Since specific general education requirements are waived for honors candidates, the student, in consultation with his adviser, creates a course of study tailored to his needs but including a broad coverage in the areas of general education.

Instructors for honors sections are carefully selected, and the size of these sections is kept small enough to allow the teacher to give personal direction to each student. Candidates are assured of getting the classes they need and are provided with library privileges equal to those enjoyed by graduate students.

The student may declare a major at any time but will be urged to do so by the end of his sophomore year. When the major is declared, if the student is not being guided by an adviser from the area of his major, he is reassigned; the adviser and student then design a program for major studies. The Honors Program maintains interest in and supervision of the student's over-all work, but authority for the major requirements continues to rest exclusively in the department and college. The adviser represents both department and the Honors Program to the student. Interdepartmental and intercollegiate majors are allowed, even encouraged, and will be handled by the director of the Program in consultation with the departments involved.

Honors will be granted after evaluating a student's total performance, including a special comprehensive examination to be given all honors candidates near the end of the senior year. The honors candidate will be graduated by the college of his major upon nomination of the executive committee of the Honors Program. Three degrees of graduation are allowed: (1) no honors, (2) honors, and (3) high honors.

Additional information regarding honors work at B.Y.U. is available in a brochure which may be obtained by writing to Honors Program, D-243 ASB, Brigham Young University, Provo, Utah.

### Lyceums and Forums

Almost since its founding, Brigham Young University has been bringing to its students distinguished men and women in arts and letters. The lyceums are evening programs of cultural value. Forum assemblies, held each Monday morning, feature speakers and artists who can offer students a better understanding of our contemporary civilization. During the 1961 Summer Session and the 1961-62 regular school year, the following were scheduled to appear on the lyceum or the forum series:

Cleveland Amory .....	Author
Geza Anda .....	Pianist
Richard Ballou (summer) .....	Clinic Band Conductor
Frank Baxter .....	Authority on Shakespeare
Earl L. Butz .....	Dean of Agriculture at Purdue University
Pierre Cochereau .....	Organist
Alistair Cooke .....	Correspondent, Manchester Guardian
Brandt Curtis (summer) .....	Acting Director, Opera Workshop
Frank Duddy, Jr. ....	President, Westminster College
Louis Fischer .....	Author
The Four Freshmen .....	Male Vocalists
Carl Fuerstner, two appearances (summer) .....	Pianist
Reginald Gardiner .....	Stage, Screen, TV Personality
Harold Goodman (summer) .....	Clinic Orchestra Conductor
John R. Halliday (summer) .....	Clinic Choral Conductor

Jean Handzlik, two appearances (summer)	Contralto
Jerome Hines	Bass-Baritone
Margaret Carson Hubbard	Author, Traveler
Antonio Janigro	Cellist
Ambassador Chandra S. Jha	India's permanent representative to United Nations
Piet Kee	Organist
Ernest Kehr	Editor
Leonard Kirkpatrick	Librarian, University of Utah
Rom Landau	Author
Ralph G. Laycock (summer)	Clinic Band Conductor
Richard Lewis	Tenor
David Mace	Author
Anne Machamer, two appearances (summer)	Soprano
Lois Marshall	Soprano
James A. Mason (summer)	Clinic Band Conductor
Margaret Mead	Anthropologist
Thomas Mitchell	Academy Award Character Actor
Alan Mowbray	Character Actor
Ogden Nash	Poet of Light Verse
Paul Niven	Former Chief of Moscow Bureau of CBS
Max Nussbaum	Rabbi, Temple Israel of Hollywood
The Archduke Otto	President, European Documentation and Information Center
Philadelphia Orchestra with the Salt Lake Tabernacle Choir	Conducted by Eugene Ormandy
Quintetto Boccherini, string ensemble	Pina Carmirelli, Filippo Olivieri, Nerio Brunelli, Arturo Bonucci, Luigi Sagrati
William Rhoads (summer)	Clinic Band Conductor
Richard Robinson, two appearances (summer)	Tenor
General Carlos Romulo	Former President of United Nations Assembly
Gilbert Russell, two appearances (summer)	Tenor
Frances C. Sayers	Lecturer
Shapiro-Schonbach-Gottlieb Trio, five concerts (summer)	Eudice Shapiro, Victor Gottlieb, Sanford Schonbach
Robert St. John	Correspondent, Author
Henryk Szeryng	Violinist
Edward Teller	Nuclear Scientist
Edward Tomlinson	Author-correspondent
Rey De La Torre, two appearances (summer)	Guitarist
Utah Symphony Orchestra, two performances	Conducted by Maurice Abravanel
Utah Talent Night	
Kenneth D. Wells	President of Valley Forge Freedom Foundation
Lloyd Wright	Former President of the American Bar Association

# General University Services

## Objectives

... seek ye out of the best books words of wisdom:  
seek learning even by study, and also by faith.

—Doctrine and Covenants, Sec. 88, v. 118

David O. McKay, President of the Church of Jesus Christ of Latter-day Saints, has stated these as the objectives of a student at Brigham Young University. As a student one should:

1. Become aware of one's own ignorance and gain humility in contemplating how infinite God's creations are.
2. Increase one's knowledge, selecting those facts and truths which will be most valuable and realizing that exact and definite knowledge is always of the greatest possible value and importance to every individual who has the moral courage to use it rightly.
3. Learn that acquisition of knowledge will result only from personal effort, not from superficial study or shirking.
4. Realize the responsibility one has, because of free agency, of individual choice. The opportunity for rising above the plane of animal existence is open to all who will choose it.
5. Come to a knowledge that the purpose of life is not mere existence or pleasure or fame or wealth, but the perfection of humanity through individual achievement under the guidance of God's inspiration.

It has been the aim of the University to encourage students to realize these objectives, objectives closely allied to, and derived from, the basic philosophy of Mormonism: man, the son of God, is a free agent with unlimited possibilities for eternal development under God's guidance; a never-ending search for truth and for an understanding of the truth should be among the activities of those who aspire to perfection.

## Objectives Formulated by the Faculty

The objectives which Brigham Young University has set for itself derive from the Latter-day Saints' concept of the nature of man, which places man as the offspring of God and as a free agent with unlimited possibilities for eternal development under leadership of his Heavenly Father. The noblest goals in eternal life may be achieved only when men work together, keeping the doors of opportunity open for everyone, and when they act under a sense of obligation to share with their fellowmen the most inspiring vision of life's possibilities. Therefore, man must use all possible means of coming into possession of truth. As a result of this Latter-day Saint ideal the curriculum of Brigham Young University includes the revealed word of God, the humanities, the arts, the natural sciences, and the social sciences. Man's glory is his intelligence, by which he may discover and apply truth and ultimately master the universe.

The objectives of Brigham Young University, prepared by the faculty and approved by the Board of Trustees in 1959, are as follows:

Education at Brigham Young University is directed toward the development of the whole person, whose life is balanced by many interests and activities, integrated by a knowledge of divine revealed truth, and dedicated to the service of mankind. The University strives to provide an environment conducive to such growth and sets forth the following as its major objectives:

1. To provide an atmosphere congenial to the development of true Christian ideals in which students may develop faith in God, and obtain an understanding of the principles of the Restored Gospel and a desire and resolution to make its standards the guiding light of their lives in service to the Church and their fellowmen.
2. To help students obtain an understanding of the world around us—its natural and physical phenomena, its peoples and their problems, and its heritage of wisdom.
3. To promote scholarly research among faculty and students in order to advance the frontiers of knowledge.
4. To assist students in learning to think clearly and critically and to communicate effectively.
5. To foster an appreciation of literature and the arts and to stimulate participation in creative or expressive activity.
6. To assist students in preparing for professional or occupational responsibilities suitable to their interests, aptitudes and capacities.
7. To provide continuing educational training and services to off-campus individuals and groups.
8. To encourage social understanding and personal development in preparation for the responsibilities of family life, Church service, community leadership, and basic citizenship.

## History of the University

**Founding and Philosophy.** Brigham Young University was established pursuant to a deed of trust executed by Brigham Young, President of the Church of Jesus Christ of Latter-day Saints, on October 16, 1875. That deed expressly set forth that the "pupils shall be instructed in . . . such branches as are usually taught in an academy of learning," and also "in the Old and New Testaments, the Book of Mormon and the Book of Doctrine and Covenants."

A group of seven persons appointed by President Young comprised the first Board of Trustees. They were Abraham O. Smoot, President of Utah Stake of the Church, which embraced all of Utah County, William Bringham of Springville, Leonard E. Harrington of American Fork, and Wilson H. Dusenberry, Martha J. Coray, Myron Tanner and Harvey H. Cluff of Provo, all prominent members of Utah Stake.

At a meeting November 22, 1875, the Board of Trustees organized the Academy. At that time the Timpanogos Branch of the University of Deseret had just been discontinued, and it was too late in the year to arrange a complete school year. Consequently the board decided to hold two preliminary terms of Brigham Young Academy. Warren N. Dusenberry, who had been principal of the Timpanogos Branch, was selected to become principal of the Academy. After conducting the first preliminary term, which ended April 15, 1876, he resigned to practice law.

Ten days later, President Brigham Young, acting for the Board of Trustees, requested Dr. Karl G. Maeser, a convert to the Church from Germany, to come to his office. "Brother Maeser," said the President, "I have another mission for you. We have been considering the establishment of a Church school, and are looking around for a man—a man to take charge of it. You are the man, Brother Maeser. We want you to go to Provo to organize and conduct an academy to be established in the name of the Church—a Church school."

A few days later, Dr. Maeser called at the office of President Young and said, "President Young, I am ready to go to Provo. What are my instructions?"

"Only this," replied the President. "I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the spirit of God. That is all. God bless you. Goodbye."

Dr. Maeser accepted this all-embracing charge, believing that the ultimate good in education could be summed up in the words of the Master: "Be ye perfect, even as your Father in Heaven is perfect." In one of his memorable sermons, Dr. Maeser stated the real purpose of the school by saying, "Not by bread alone, neither for bread alone does man live. There are higher objectives yet to be attained, other truths to be learned, and greater work to be done." Years later, consistent with that philosophy, the school adopted as its motto this revelation of the Lord: "The glory of God is intelligence."\*

**Administration of Karl G. Maeser.** Karl G. Maeser served as principal of the Academy from April 24, 1876, to January 4, 1892, a period of 16 years.

He had received intensive training in the excellent German schools of his time. He was a graduate of the Dresden Gymnasium and of the normal schools of Friedrichstadt, Germany. At the time of his conversion to the Church, he was Vice-Director of the Budich Educational Institute at Dresden.

Neither Warren N. Dusenberry nor Karl G. Maeser had much academic assistance at the beginning of school. When Dr. Maeser began his teaching at Brigham Young Academy, he was principal and the sole teacher of the twenty-nine students, most of them from Utah County.

The old Lewis Building, which stood on the corner of Third West and Center Streets, was the first home of Brigham Young Academy. This building was later described by Justice George Sutherland of the United States Supreme Court, one of the Academy's first students, as being a "structure without beauty or grace or any other aesthetic feature calculated to invite a second look . . . It consisted of one large room and a stage—both so utterly bare and gloomy as to make inappropriate any form of entertainment except tragedy."

By 1882 this building was found to be inadequate for the needs of the school, and additional rooms were built from funds provided by A. O. Smoot, Harvey H. Cluff, Myron Tanner, and W. H. Dusenberry. However, this structure was entirely destroyed by fire January 27, 1884. Temporary quarters were obtained, and the school continued with the loss of only one day of school. During the summer of 1884 arrangements were made with Z.C.M.I. for the use of the upper floor and part of the lower floor of its warehouse on University Avenue.

Members of the Board of Trustees were appointed by Brigham Young until his death in 1877, when the responsibility fell upon his heirs.

The transition of Brigham Young Academy into the University of the Church has been marked by periods of great financial distress. Brigham Young died before he had provided for the endowment of the institution. This left the school without any assured source of income.

In the early days of the school, when no funds for the budget could be found, the board actually considered closing the Academy. It was then that Professor Maeser and his faculty showed their loyalty by teaching for anything they could get, including agricultural products, which were accepted from students in lieu of cash tuition.

President A. O. Smoot of Utah Stake was equally loyal. In the winter of 1887, to bolster up a shrinking enrollment, he asked each member in attendance at a stake priesthood meeting to pay the tuition of at least one student at the Academy. On leaving before the close of the meeting, he told the priesthood assembled that they might name the sum he should pay and he would abide by the decision. Members of the Academy faculty readily responded to the call. One faculty member, who was teaching his first year at a salary of twenty dollars per month, paid a quarter's tuition for one student.

On June 8, 1888, President Wilford Woodruff organized a General Board of Education of the Church, consisting of nine members. This board directed the

\*Doctrine and Covenants 93:36.

activities of the school, but the power of appointment of the Board of Trustees still remained with the heirs of Brigham Young until July 18, 1896, when, by the adoption of the Articles of Incorporation for the University, the right of appointment was granted to the First Presidency of the Church through the consent of the heirs of Brigham Young. By this action, the Church assumed the indebtedness of the institution and accepted the responsibility of maintaining Brigham Young University.

On January 4, 1892, the school was moved to what is now known as the Education Building, the first structure built especially for the University. Much of the \$75,000 it cost was made available through the personal credit of President A. O. Smoot, a member of the Board of Trustees at that time.

Dr. Maeser's administration will be remembered primarily because of his masterful teaching. His legacy to the Church school system consisted of three ideals: (1) the acquirement of intelligence by academic studies; (2) the development of character; and (3) a reverence for the revealed word of God, together with a living testimony of the divinity of the message of the Church which he represented. He often stated that "no infidel" would go out from his school, and it is doubtful whether any did. His sermons were classics which lived with his students throughout their lives. He was the great spiritual architect of the school.

**Administration of Benjamin Cluff.** Benjamin Cluff, a former student of Karl G. Maeser, served as president from January 4, 1892, to December 23, 1903. He was one of the first native Utahns to earn a college degree, having received it from the University of Michigan in 1890. He influenced many young men and women to go to larger universities in pursuit of higher learning. Some of them later became teachers at Brigham Young University.

His administration was effective in changing the school from one which was still largely a normal school, with a very small college department, to a university.

After 1892 President Cluff asked the Church authorities to provide another building to house the growing student body properly. As the Church was not prepared to furnish the money, Reed Smoot, chairman of the Executive Committee of the Board, took the initiative and secured a contribution of one thousand dollars each from Wilford Woodruff, George Quayle Cannon, Joseph Fielding Smith, Reed Smoot, Jesse Knight, Charles Edwin Loose, Alfred William McCune, Amanda Inez Knight, Stephen L. Chipman, and Jesse William Knight. The cost of the building exceeded ten thousand dollars, but Reed Smoot subscribed the additional amount to cover the expense. It was named College Building. Dedication was held in connection with commencement week in 1898.

The financial panic of 1893 further intensified the school's financial difficulties. Some of the real estate sold to clear part of the indebtedness had to be repossessed by the school, and \$30,000 was supplied by the Church to be applied on its debts. President A. O. Smoot underwrote large notes for the school to keep it operating. On his death, the trustee-in-trust of the Church, in the interest of the heirs of the estate, agreed to underwrite all notes of the Academy bearing President Smoot's endorsement.

President Cluff was instrumental in founding an alumni association in June of 1893. He gave encouragement to student organization and activity. Early in his administration two school papers were begun; athletic sports such as football, basketball, and track were encouraged; and the school colors, blue and white, were chosen. He established the first summer school and added new departments and laboratories.

In 1894 the title of the head of Brigham Young Academy was changed from "Principal" to "President," and in 1903 the school became Brigham Young University.

In 1900 President Cluff sponsored a South American expedition to engage in archaeological study of Book of Mormon sites. While he was in South America, Acting President George H. Brimhall asked the authorities for a Church normal training school building with a gymnasium on the upper floor. Jesse Knight, a member of the Board of Trustees, volunteered a contribution of

\$15,000. The board promptly authorized the project. Other contributions were solicited with good results. The total cost of the Training School and Gymnasium Building was \$35,000. The dedicatory service was held February 17, 1902.

**Administration of George H. Brimhall.** On April 16, 1904, after having acted as President of the University while Benjamin Cluff was in South America, George H. Brimhall was appointed President of Brigham Young University. Joseph B. Keeler was appointed as his first counselor and Edwin S. Hinckley his second counselor.

Dr. Brimhall was also a former student of Dr. Karl G. Maeser. He was a dynamic speaker and also a great molder of character. He continually stressed the fact that the primary purpose of the school was to make better Latter-day Saints.

The Missionary and Preparatory Building, later known as the Art Building and now as B.Y. High, was dedicated October 26, 1904. It cost \$13,000, of which amount \$9,000 was apportioned to four stakes: Utah, Alpine, Nebo, and Wasatch.

In 1904 the students and faculty began negotiations for the purchase of seventeen acres of land known generally as Temple Hill. This land, purchased from Provo City about 1907 at a total cost of \$1,000, was the beginning of the upper campus. A survey of the land purchased showed that about one and one-half acres at the point of the hill was not included in the deed given by Provo City. The students and faculty members of the school voluntarily raised an additional \$1,000 to pay for this land.

This purchase provided a place for the Maeser Memorial Building, the cornerstone of which was laid on Founder's Day, 1909. It was ready for occupancy the fall term of 1911. The structure and furnishings cost \$130,000; the Knight family contributed \$65,000, and other members of the alumni some \$50,000. The remainder of the cost was met through the sale of Blue Bench Irrigation Company Bonds owned by the school.

The Women's Gymnasium was erected in 1913 and the Mechanic Arts Building in 1919.

On December 21, 1914, the late Jesse Knight made an endowment to the University of one hundred thousand dollars in six per cent bonds. The interest payments on these bonds, together with the payments on bonds which have matured, have been placed at interest, and the cash credit of this account now represents approximately twice the amount of the original endowment.

During President Brimhall's administration, graduate work was introduced and the first master's degrees were conferred. The school spirit was furthered by the organization of the students into a student body. Printing of the school yearbook, *The Banyan*, was begun, and a huge white "Y" was placed on the mountainside east of Provo.

Dr. Brimhall served until July 1, 1921, a period of 17 years.

**Administration of Franklin S. Harris.** Franklin S. Harris, a former student of the institution under President George H. Brimhall, was selected to succeed his former president. Dr. Harris had received his Ph.D. degree from Cornell University in 1911 and had served as an instructor in the Juarez Academy and Cornell University, professor of agronomy for the Utah Experiment Station, director of the School of Agricultural Engineering and Mechanical Arts, and director of the Utah Experiment Station at the Utah State Agricultural College. He had a world-wide reputation as a scientist.

Dr. Harris became president July 1, 1921, and served until June 30, 1945, a period of 24 years, the longest term of any president. During his administration, academic gains of great significance were made. The University was organized into five colleges: Applied Sciences, Arts and Sciences, Commerce, Education, and Fine Arts; and the Division of Religion and the Extension Division were established. The graduate school was formally organized and a dean of the Graduate School appointed. The Heber J. Grant Library was completed in 1925, the Y Stadium in 1929, and during the last ten years of his administration a building program was begun which has been accelerating ever since.

It was President Harris who first envisioned the present expanded upper campus of the University and indeed who made it possible by his extensive

purchasing of lands surrounding the original upper campus. It was also during his administration that all members of the Quorum of the Twelve became members of the Board of Trustees.

In 1935 two stories were added to the Mechanic Arts Building to provide additional classrooms and laboratories. The name was changed to George H. Brimhall Building. During 1935-36, a Stadium House on the west side of the football field was erected. In 1937-38, Allen Hall, a men's dormitory, and in 1938-39, Amanda Knight Hall, a women's dormitory, were constructed. These buildings accommodate 90 and 130 students, respectively. The construction of both buildings was financed by borrowing from the Knight Endowment Fund. The Joseph Smith Building was begun in 1939 and completed in 1941 as a project of the Church Welfare program. During 1943 the University acquired the National Youth Administration Building on the east part of the campus for use of the Mechanic Arts Department. In 1944, because of the acute housing problem created by the building of the Geneva Steel Plant it was equipped to serve as a temporary dormitory for women.

**Administration of Howard S. McDonald.** Howard S. McDonald, the next president of the University, served from July 1, 1945 to October 30, 1949. Before being appointed to this position he had served as assistant superintendent of schools in San Francisco and later as superintendent of Salt Lake City schools.

Under his leadership the school experienced a major expansion. From 1946 to 1948 the temporary women's dormitory at the southeast end of the campus was remodeled into what is now known as Social Hall, containing a large dance floor and classrooms and offices used by the Music Department. During the same period Knight-Mangum Hall, a four-level structure adjoining the Social Hall on the west, was constructed. This building provides housing and eating accommodations for 280 women. Because of the enlarged, post-war student body, student housing facilities were greatly increased. In cooperation with the Federal Works program, temporary housing, known as Wymount Village, was constructed in 1946-47 near the eastern edge of the campus for 200 married veterans and their wives and for 350 single veterans. Also under the Federal Works program of aid to education, temporary-type buildings were provided in 1946-47, consisting of the Physical Plant Building, Public Relations Building, North Building, Industrial Arts Building, Wymount Dining Hall, and University Press. In 1948 the Speech Department was moved to the Upper Campus and housed in temporary buildings. Here the Brigham Young University broadcasting station, KBYU, is located. A central heating plant costing \$200,000 was constructed in 1946.

Under President McDonald's direction the Eyring Science Center was begun and almost completed. Called by many educators the finest and most modern science building between the Mississippi and the Pacific Coast, it has four stories and contains approximately 150,000 square feet of floor space (practically the equivalent of the space of all of the other buildings of the University previously constructed). It is equipped with the finest facilities for study and research. Moreover, it is proof of the Church's sincere belief that there is nothing inconsistent between scientific truth and the teachings of the Gospel.

During his administration the planning and architectural drawings of buildings for the University were assigned to a University architect. The buildings and grounds were placed under the direction of a superintendent of buildings and grounds.

In the post-war era of expanding collegiate enrollments, Brigham Young University, under his direction, expanded at a much faster rate than many other universities of the country. The faculty was increased to meet the new need. The Graduate School and the Student Counseling Service were both reorganized. As was true with his predecessors, he upheld and perpetuated the spiritual ideals of the University's academic life.

**Administration of Christen Jensen.** Dr. Christen Jensen acted as President of Brigham Young University during 1939-40 (when Dr. Harris spent a year in Iran) and again from November 1, 1949, until the early part of 1951. His two

periods of administration were characterized by an emphasis on scholarship and a meticulous observance of proper University standards. In an era of dynamic University problems, President Jensen directed an administration characterized by academic and administrative stability and sound judgment. Under his direction the Eyring Science Center was completed and dedicated on October 23, 1950; the plans for the new George Albert Smith Fieldhouse were approved, a drive for funds conducted, and its construction practically completed at a cost of over \$1,000,000. It provides, in addition to athletic and physical education facilities, offices for faculty members in the College of Physical Education. The fieldhouse has a capacity of 10,650 persons.

**Administration of Ernest L. Wilkinson.** In 1950 Dr. Wilkinson was selected by the Board of Trustees as the new President. He began his period of service in February 1951.

After graduating from Brigham Young University, he was graduated from George Washington University Law School where he received his LL.B. degree. He then attended Harvard Law School where he obtained the degree of Doctor of Juridical Science. After graduation he accepted an appointment to teach at the New Jersey Law School as professor of law. Soon thereafter he was invited to become an associate in the New York City law firm of which the Hon. Charles Evans Hughes, later Chief Justice of the Supreme Court of the United States, was the senior member. Later, organizing his own firm in Washington, D.C., Dr. Wilkinson achieved a national reputation as a lawyer, climaxed by obtaining judgments of \$32,000,000 for the Ute Indians, the largest judgments ever entered in the United States Court of Claims against the United States.

As a churchman he has served as a bishop in the New York Stake and as a member of the stake presidency in the Washington Stake, and he has represented the Church on the National Commission for Army and Navy Chaplains, which approves chaplains appointed to the armed forces of the United States.

In 1951 a Reserve Officer Training Corps unit of the Air Force was activated at Brigham Young University. The officers of this unit have been selected by the Secretary of the Air Force, with the approval of the President of the University. This unit is composed entirely of students regularly enrolled at Brigham Young University, and the same standards of conduct and living are required of them as of other students at the University. In accordance with an agreement with the federal government, a building was completed in October 1952, which serves as a permanent rifle range for the A.F.R.O.T.C.

During his ten years of service, the University has experienced over 100 per cent increase in enrollment. In 1953 the University became the largest church-related institution of higher education in the United States. The faculty has witnessed an even larger proportional increase in numbers, and the five colleges, one school, and two divisions previously comprising the University have been increased to eleven colleges, one school and one division: Colleges of Biological and Agricultural Sciences, Business, Education, Family Living, Fine Arts, General, Humanities and Social Sciences, Nursing, Physical and Engineering Sciences, Physical Education, Religious Instruction; Graduate School; and Adult Education and Extension Services.

Throughout his administration President Wilkinson has insisted upon ever-higher standards of scholarship. Under his direction the curriculum has undergone extensive revision to eliminate sub-university or duplicating courses, to strengthen existing courses, and to add courses needed in the expanding college program.

A notable advancement in the academic program of the University resulted from the action of the Board of Trustees in authorizing programs leading to the Ph.D. and Ed.D. degrees. Between November 22, 1957, when the first doctoral degrees were authorized, and the present date approval has been given to fourteen departments for programs leading to the Ph.D. degree in twenty-one fields of study. Two departments offer work leading to the Ed.D. degree.

Among his most significant achievements is the organization on January 8, 1956, of a Brigham Young University stake of the Church. That stake has been divided into three stakes, and the original twelve wards have been increased to thirty-two wards. Spiritual benefits of this program to students have been in-

calculable. One specific advantage is the providing of a spiritual adviser to every 300 or 400 students supplementing the regular University Counseling Service and offering a dual system of advising and counseling.

During the administration of President Wilkinson, the following new buildings and facilities have been added to the University:

The Herald R. Clark Student Service Center, begun in July 1952, was completed and made available for occupancy in March 1953. The financing of this building was primarily from income of the Students' Supply Center over its years of operations. In the building are housed, in addition to the bookstore itself, the Adult Education and Extension Services—including the Audio-Visual Communications Department; the studentbody offices and organizations; student publications; and student services such as a post office.

A large building project was started July 1952 with the construction of 16 buildings making up what is known as Heritage Halls. These buildings, completely modern in every respect, house 972 girls. Six girls live together in an apartment, preparing their own meals and doing their own housework. There are ten apartments to a building. Occupancy of the first of the buildings was begun in March 1953. The entire project was completed and fully occupied by the fall quarter of 1953.

Eight new buildings to house women students were added to the original 16 buildings of the Heritage Halls group. The total project was completed in the summer of 1956 and was fully occupied for the fall quarter of that year. The addition of these eight structures brings the total accommodations for this type of housing for women to 1,539.

The Harvey Fletcher Engineering Laboratory Building, constructed in 1953 and added to in 1954 and 1955, is an H-shaped building having four wings with laboratory space for the Civil, Mechanical, Electrical, and Chemical Engineering Departments. The central core of the building consists of offices serving the needs of the teaching staff. In 1953 a motion picture building with sound stage and related facilities was constructed. This building was equipped with the most modern animation and motion picture sound equipment for the production of educational moving pictures used throughout the Church.

The David O. McKay Building, a classroom building containing 104 offices and 31 classrooms and laboratories, was begun in March 1954 and completed in December of that same year. This building currently houses the College of Education, the Departments of English, Modern Languages, and Political Science. In the early spring of 1955 the Benjamin Cluff Plant Science Laboratory, with two connecting greenhouses, was completed. This structure is used by the Botany, Agronomy, and Horticulture and Horticultural Specialties Departments. The Howard S. McDonald Student Health Center was opened for use of all students enrolled at the University in the fall of 1955. The lower floor of this structure is currently used as headquarters for the A.F.R.O.T.C.

Construction of the Joseph F. Smith Family Living Center began in the fall of 1955 and was completed in December 1956. Housed in this structure are the College of Family Living, the College of Nursing, a nursery school, and the Departments of Psychology and Sociology.

New housing facilities for married couples were added to the University housing projects in 1957. Wyview Village, a project consisting of 150 two- and three-bedroom homes for married students, was completed and fully occupied in the fall of 1957.

Another project completed during 1957 was the conversion of the University heating system to a \$2,000,000 high-temperature water system.

In the fall of 1958 five residence halls for men, known as Helaman Halls, were completed. This project consists of residence structures housing 1,170 men, and one central building with dining, recreation, and business office facilities. Two additional residence halls became part of this project in the fall of 1959, bringing the total number of accommodations up to 1,638.

A building for the production of motion pictures was completed in the fall of 1958. It is located in the river bottom area a short distance from the main

campus. In December of 1959 the William H. Snell Industrial Education Building, containing 60 rooms for offices, classrooms, and laboratories for the Industrial Education Department, was completed. At this same time an addition to the George Albert Smith Fieldhouse was readied for use.

During the summer of 1960, the Jesse Knight Building, which houses the departments of the College of Business, was completed.

During 1961 campus roads and walks were expanded and improved; black-topped parking areas were enlarged to accommodate 2,794 cars; and an underpass near the Y Bell Tower was built.

The Abraham O. Smoot Administration and General Services Building and the Library Building were completed during the summer of 1961, adding more than 300,000 square feet of floor space to the campus facilities. The administration building has four levels and is built in the form of an X to provide maximum light and airiness to its offices. The Library Building has five levels, two of them below ground, and will house more than 1,000,000 volumes.

The Alumni House, located at the brow of the hill near the main entrance to the campus, was completed in the fall of 1961.

During this same period a student service center was begun, and ground was broken for a 462-apartment married-student housing project. The housing project is scheduled for completion in March of 1963 and the student center in April of 1964.

Plans have been approved and the contract awarded for a new physical plant building, and a new fine arts center is in the planning stages.

## The University Today

**Unification Plan.** In every era of the Church its leadership has been sensitive to the need of continued intellectual and spiritual growth for its members. To meet this need, Church educational policies have constantly been adapted or modified to serve more fully the youth of the Church.

It was in such a spirit that all Church educational institutions were combined in July 1953 under one administrator, Ernest L. Wilkinson, who in turn is subject to a board of trustees for Brigham Young University and a board of education for the rest of the Church School System. Both boards, however, consist of the First Presidency and the Council of the Twelve. In announcing this unified plan the First Presidency said: "This great system of schools, institutes, and seminaries can become an ever more effective instrumentality in equipping the youth of the Church with solid foundations to meet the challenge of modern living." It added that Dr. Wilkinson "has surrounded himself with strong men to do a big job," and that "he will have at his service the strength not only of these men, but of all the members of the Brigham Young University faculty."

Since the approval of this plan during the summer of 1953 the administrative offices of Church education have been established at Brigham Young University. Thus this University becomes the mother institution for Latter-day Saint education. From this campus a spirit of simplifying efficiency, economy, uniformity of standards and procedures, and even wider cooperation and harmony can now weld all phases of Church educational work into a stronger unit than ever before.

Ernest L. Wilkinson, chancellor of the Unified Church School System, continues as President of Brigham Young University. Assisting him are five vice-presidents: William E. Berrett, administrator of the institutes and seminaries of the Church, assisted by Alma P. Burton and Dale T. Tingey; Earl C. Crockett; Ben E. Lewis; Clyde D. Sandgren; and Harvey L. Taylor. Joseph T. Bentley is comptroller, John T. Bernhard is administrative assistant to the President, and William Noble Waite is assistant to the President in charge of University development.

Under this plan established schools, seminaries, institutes, and colleges continue their functions. Changes will be brought about as need and the growth of the Church dictate. In addition, each institution shares its particular problems and philosophies with its sister institutions, as coordinated and interpreted by the chancellor and his assistants.

A survey made during the spring of 1961 provided the following information about the faculty:

- 30 were serving on general boards of the Church.
- 2 were temple workers.
- 4 were stake presidents.
- 13 were serving in stake presidencies.
- 2 were stake patriarchs.
- 3 were serving as mission presidents.
- 1 was serving in a mission presidency.
- 48 were on stake high councils.
- 84 were serving in other stake positions.
- 26 were ward bishops.
- 28 were in ward bishoprics.
- 393 were serving in other ward positions.
- 35 were serving in elder's and seventy's quorum presidencies.

**Academic Growth and Recognition.** Brigham Young Academy as originally organized by Karl G. Maeser had three departments: the Academic, the Intermediate, and the Primary. Instruction was given mostly in the work of the lower grades, although a normal class was included in the Academic Department. Today the University offers a full university curriculum, and its credits are recognized and accepted to the same extent as those of other leading American colleges.

Brigham Young University is affiliated with the following educational associations:

- American Association for Adult Education
- American Association of Colleges for Teacher Education
- American Association of Collegiate Registrars and Admissions Officers
- American Association of University Women
- American College Public Relations Association
- American Council on Education
- American Library Association
- The American School of Oriental Research
- American Society for Engineering Education
- Association of American Colleges
- Department of Baccalaureate and Higher Degree of the National League for Nursing
- Educational Films Library Association
- National Association of Schools of Music
- National Association of Student Personnel Administrators
- National Commission of Accrediting
- National University Extension Association
- Utah Conference on Higher Education
- Western Council for Higher Education in Nursing
- Western Interstate Commission on Higher Education
- Western Personnel Institute

In addition, Brigham Young University is fully accredited by the following organizations:

- Northwest Association of Secondary and Higher Schools
- American Chemical Society
- Engineering Council for Professional Development
- National Council for Accreditation of Teacher Education for the preparation of elementary teachers, secondary teachers, and school service personnel, with the master's degree as the highest degree approved.
- National League for Nursing
- Utah State Department of Public Instruction in cooperation with the United States Office of Education for the training of vocational home economics teachers.

**Growth of the Student Body.** When founded in 1875, Brigham Young Academy gave elementary and high school work only. Over the eighty-seven years of its existence it has become in terms of full-time equivalent students the largest university in Utah. At the present time it is experiencing a rapid growth, which, if continued, will soon make it one of the largest institutions of the West.

At the time of its organization in 1875, nearly all of the students came from Utah County and its environs. Its student enrollment began at 29. During the regular 1960-61 school year, there were on campus approximately 11,460 daytime students. This number combined with the enrollments of the Summer School, Evening School, and Laboratory Schools brought the total to 14,683 students. In addition, from September 1960 to August 1961 there were 36,184 enrollments in Adult Education and Extension Services.

The students registered during the last few years came from all the states of the Union, the District of Columbia, the Panama Canal Zone, and from 46 foreign areas. Approximately 59 percent of the students are from outside the state of Utah, and this percentage is increasing each year.

As in the days of Dr. Maeser, industry and thrift are encouraged. At the present time over 40 per cent of all students are employed in earning part of their subsistence.

Membership in the Church of Jesus Christ of Latter-day Saints is not required for admission, although at the present time 94 percent of the students are members of the Church. The other 6 percent, as a condition of their continuance as members of the student body, are required to abide by the same standards of morality and integrity as other students.

## University Library

The University Library Building contains the library collection, which includes approximately 350,000 bound volumes, several thousand pamphlets, and an extensive collection of titles on microfilm and microcards. A good selection of professional journals and other current periodicals, as well as local, regional, and national newspapers, is also available.

The library is a depository for United States government documents and regularly receives publications of state and local governments. The general library facilities are available to students, faculty, alumni, and other interested persons. Regularly enrolled students present their activity cards to borrow books. Others may obtain a permit from the circulation librarian. The library is open during the college year from 7:30 a.m. to 10:00 p.m. Monday through Friday, and from 9:00 a.m. to 5:00 p.m. Saturdays. It is closed during assemblies each Monday, Wednesday, and Friday from 10:00 to 11:00 a.m. Vacation hours, when school is not in session, are 8:00 a.m. to 5:00 p.m. Monday through Friday; it is closed weekends and holidays.

With the completion of the new library building during the summer of 1961, it was possible to bring together parts of the library collection that had been housed temporarily in almost every major building on campus. The general collection is available on open shelves on four of the five floor levels—two below and two above ground floor. The central reference collection, the public catalog, the circulation desk, and administrative offices are located on the ground level. An information booklet is available to assist in the use of these new facilities. Study space is available on each floor interspersed with stack areas.

The special collections of the University library are located on the fourth level. These collections often come to the library from individuals whose interests lead them to devote many years to their acquisition. The books and other material housed in this area are not available for general circulation. Material within each collection is usually confined to a specific subject area.

The facilities of other libraries operated by the L.D.S. Church are available also to students of Brigham Young University. The Genealogical Society Library, temporarily located in the Montgomery Ward Building at 1st South and Main Streets, in Salt Lake City, contains approximately 55,000 books and 150,000 rolls of microfilm. These include family histories, genealogy, biography and autobiography, military records, cemetery inscriptions, and town, county, and state

histories of the United States and both local and national histories of other nations.

Facilities of the library of the Church Historian's Office are available by arrangement to advanced students for research. It is located in Room 103 of the L.D.S. Church Office Building, 47 East South Temple in Salt Lake City, and is open from 8:30 a.m. to 5:00 p.m. Monday through Friday. Its collections contain publications of the Church, periodicals of the various auxiliary organizations, reports and histories of the various missions, general history of the Church, biographies of Church leaders, and other pertinent published and archival material.

## Science and Art Collections

**The archaeological collection** consists of materials for study and research in the early history of man. Original antiquities on display, illustrating the early history of man in the Old World, range from crude stone "hand axes" of the Old Stone Age to inscribed tablets and other advanced products of the ancient biblical civilizations of the Near East. Those illustrating the early history of man in the New World include representative artifacts of the early Indian cultures of Utah and the Southwest and antiquities of the ancient pre-Columbian civilization of Mexico and Central and South America. Supplementing this exhibit are replicas of such famous archaeological monuments as the Rosetta Stone—key to the deciphering of the Egyptian hieroglyphics—and the "Tablet of the Cross" from the ancient Maya city of Palenque in Central America.

Also in the archaeological museum is a research archive of several thousand photographs and field card records of antiquities excavated or examined by archaeological expeditions of the University and other institutions.

**The botanical collection** includes an herbarium of fungi, liverworts, mosses and vascular plants from many parts of the world. The mycological collection consists of over 2,500 specimens of fleshy and parasitic fungi, most of which have been collected in the Rocky Mountain area. This represents one of the best collections of fleshy fungi of this region.

The vascular plant herbarium includes some 200 plant families, 1,250 genera, and 5,000 species. These are represented by over 30,000 herbarium sheets. The collection is made up principally of plants collected in the western states, but many plants of the eastern states, Europe, Mexico, and South America are included as well as a good representation of the Arctic regions of Siberia, Iceland, and the Aleutians. The grasses are especially well represented. A separate collection of poisonous plants, range plants, woody plants, and plant diseases is maintained.

The department maintains a botany garden or arboretum where more than 300 trees of various regions of North America representing in excess of 100 species are grown in natural association. This garden is designed as an experimental project to enrich the tree flora available for use as shade trees, as a public educational exhibit, and as a study for many classes. Two or three gardens also are maintained for experimental purposes.

**The fine arts collection** of paintings, sculpture, drawings, etchings, engravings, monotypes, lithographs, and reproductions of works of art is as follows:

### I. Memorial Collections.

1. The Lee Greene Richards Collection of 36 paintings.
2. The James T. Harwood Collection of 90 paintings, etchings, and drawings.
3. The John Hafen Collection of 24 paintings.
4. The Elbert H. Eastmond Collection of 64 paintings.
5. The John Willard Clawson Collection of 85 paintings and sketches.
6. The Maynard Dixon Collection of 85 paintings and sketches.
7. The Edwin Evans Collection of 61 paintings.
8. The Rose Hartwell Collection of 71 paintings.
9. The Rose Hartwell Crafts Collection.
10. The Joseph Imhof Collection of lithographs.

11. The Merlin A. Steed Collection of 70 paintings.
12. The Mahonri Young Collection of 304 sculpture pieces (bronze and plaster), 326 paintings, 5,308 water colors and drawings, 1,112 etchings and prints.

Acquired with the Mahroni Young Collection are oils, pastels, drawings, water colors, etchings, and other prints totaling 2,116 pieces. Among the artists represented above are such names as Albert Bierdstadt, Clifford Beal, Camille Corot, Arthur B. Davies, William Glackens, Child Hassam, Winslow Homer, Edward Manet, Jean F. Millet, Joseph Pennell, John Twachtman, Dorothy Weir, J. Alden Weir, James Whistler, Harry Wickey, and others.

13. LeRoy Pharis Collection of 49 pieces of Chinese ivory carvings.

- II. Other Utah artists represented: George M. Ottinger, Daniel Weggeland, Loris Pratt, John B. Fairbanks, Samuel Jepperson, Minerva Teichert, Alma Wright, Waldo Midgley, Calvin Fletcher, Cornelius Salisbury, Joseph Everett, Henri Moser, Torlief Knapfus, Avarad Fairbanks, Henry Rasmussen, B. F. Larsen, Edgar M. Jensen, Glen H. Turner, J. Roman Andrus, Warren B. Wilson, Richard L. Gunn, and Lavieue H. Earl.
- III. Other well-known national artists represented: Lee Randolph, George Elmer Browne, Fern Gary, Gordon Grant, Marie A. Hull, Haley Lever, Clarence Millet, Luis F. Mora, Chauncey F. Ryder, Matteo Sandona, W. Lester Stevens, Anthony Thieme, John Law Walker, J. Alden Weir, John Whorf, Eliot Daingerfield, George Pierce Ennis, John E. Costogan, George Henry Taggart, William Morris, Jon Corbino, J. Connaway, Robert Brackman, Peter Hurd, Marguerite Pearson, Henry W. Ranger, John Twachtman, John F. Carlson, Gene Kloss, Earle Loran, Emil Bistran, Umberto Romano, Lez Haas, and Eric Bransby.
- IV. Original etchings, lithographs and other prints, including the work of Ernest Fiene, Rockwell Kent, Joe Jones, Reginald Marsh, Waldo Pierce, Herbert Dunton, Boardman Robinson, Otis Dozier, Lawrence Barrett, John Taylor Arms, Kaethe Kollowitz, Gene Kloss, Conrad Buff, Reynold W. Weidenaar, Hans Erni, Fernand Leger, Glen Alps, Harry Sternberg, and Wendell Black. There are also 24 Rembrandt replicas.
- V. Oriental art, including Japanese paintings, prints, and reproductions.
- VI. Reproductions of famous works of art, including various types of modern art.
- VII. Large collections of slides, including natural color slides and the George K. Lewis memorial collection of kodachrome slides.

The Lotta Van Buren collection of ancient instruments and music contains rare old instruments, modern reproductions of ancient instruments, literature on ancient instruments, and a library of old instrument scores. In this collection are also some ancient costumes and pictures of interest.

Among the instruments, some of which were made in the Fifteenth Century, are the following: a viola da gamba (once owned by George Frederic Handel), five viols, a cittern, an Arabian lute, a two manual harpsichord, a virginals, an octavina, two clavichords, a hurdy-gurdy, and other such instruments.

The Van Buren collection is one of the few collections in the United States in which all instruments are in playable condition. Several concerts in which some of these instruments are used are given each year.

This unusual collection, housing in a specially equipped room (210 College Building), is open for inspection by the public.

The geological collections of the University consist of an unusually complete series of minerals and an interesting variety of fossils.

The minerals number many thousands and are representative of the great western mining districts together with hundreds of localities of note. Part of this collection once represented the nucleus of the famous Deseret Museum Collection of Salt Lake City.

The fossil series are representative of many states and typical world localities. Much of this material also was formerly a part of the Deseret Museum Collection.

The zoological and entomological collections of the University consist of a large series of identified vertebrate and invertebrate species from Utah and other areas. These materials are available for regular class work and for research.

The vertebrate collections consist of ample series of well preserved and catalogued species of fishes, amphibians, reptiles, birds, and mammals. The collections include the Chester Van Buren Collection of South American birds; the Robert G. Bee, John Hutchings, and Ashby D. Boyle collections of bird eggs; and the David Starr Jordan Collection of fishes from the Hawaiian Islands. Several of our staff members have obtained collections from Mexico, the South Pacific islands, Formosa, and other distant localities, in addition to the ample collection of local species.

The invertebrate collections include several hundred thousand insect specimens and their near relatives as well as other groups of animals. This collection includes a large number of medically important arthropods such as fleas, lice, mites, and ticks. The special collections include the Lee F. Braithewaite Collection of marine invertebrates, the Tom Spaulding and Ashby D. Boyle butterfly collections, the Charles W. Leng Collection of beetles, and the Charles Schaeffer Collection of weevils. These are in addition to other minor collections and to many specimens collected locally and in other parts of the world by the University staff and students.

## Computer Research Center

A modern electronic computer, augmented by all necessary auxiliary card punching and card handling equipment, is maintained in Room 62 of the Jesse Knight Building. This equipment is used as laboratory equipment for several classes in the Departments of Accounting and Mathematics and in the Technical Institute program. In addition, arrangements may be made by faculty members, graduate students, and undergraduate students to use these facilities in the analysis of any personal or University-connected research.

Many pre-coded programs, covering a variety of fields, are available at the center, as well as professional programing and consulting services. Arrangements also may be made through the Computer Research Center to transmit problems to the Western Data Processing Center at Los Angeles where the latest and best computer equipment is available for use.

## Faculty Organizations

**B.Y.U. Women.** The purpose of the organization known as B.Y.U. Women is to foster the ideals of the institution and to help furnish recreation and social amusement for the faculty. A woman is eligible for membership in this organization and becomes a member on payment of dues provided that at the time she seeks admission she is either (1) a present faculty member (A faculty member is one who holds at least the rank of instructor.), (2) a past faculty member, (3) a matron, (4) a board member, (5) the wife of a faculty member who has died while in the employment of the University, (6) the wife of a present faculty or board member.

**The Society of the Sigma Xi.** The Society of the Sigma Xi is a national organization devoted to the encouragement of research in pure and applied science. The local unit is known as the Brigham Young University Chapter.

Members of the Society of the Sigma Xi on the staff at Brigham Young University organized a Sigma Xi club in 1935. Since that time it has remained continuously intact, encouraging research and other activities in the various branches of science. A petition for chapter standing was submitted by the local club in 1949. A chapter was granted by the National Society of the Sigma Xi, and formal installation took place October 17, 1950.

Specific local projects include the sponsoring of a national Sigma Xi-appointed lecturer, the promotion of several lectures by prominent scientists within the unit and from nearby institutions, an annual Sigma Xi lecture by a member of

the chapter, the awarding of an annual medal to an outstanding student for the completion of a research project, and the direction of possible sources of research funds in the interest of pure and applied science.

## Alumni Association

The Brigham Young University Alumni Association was organized in 1893 to "promote the general welfare of Brigham Young University."

During the sixty-nine years of its existence, it has assisted the University in many ways: The Maeser Memorial Building was built with funds from alumni; part of the property on which the upper campus now stands was obtained by the Alumni Association and turned over to the University, and eighty additional acres were purchased by the Church at the suggestion of alumni leaders; a permanent endowment fund was established in 1929; the Alumni Association is now taking an active part in the Brigham Young University Destiny Fund Program; the fieldhouse fund drive was supported by the Alumni Association; funds in cash have been turned over to the University at various times for unrestricted use; and the alumni have played a vital part in stimulating interest in Brigham Young University through contacts with prospective students, etc.

Alumni of the University now number more than 80,000 and are located in all fifty states, four United States territories and possessions, and fifty-two foreign countries. Stake and mission presidents of the Church appoint alumni in their respective stakes and missions to serve as B.Y.U. coordinators who organize and conduct alumni activities in their areas. These coordinators are also members of the Alumni Council, governing board of the Alumni Association. The Council meets twice each year, during the weeks of April and October L.D.S. general conferences. Routine matters of the association are handled by an eighteen-member executive committee, headed by a president, two vice-presidents, a treasurer, the president of the Emeritus Club (composed of alumni who were at the University fifty or more years ago), and a full-time executive secretary. Members of the Executive Committee are selected each year to serve terms of three years. Members of the Executive Committee are also members of the Alumni Council.

Anyone who has attended the University for one quarter or more is a member of the Alumni Association. There are no annual dues or membership drives, except that the Alumni Association solicits contributions for the Brigham Young University Destiny Fund. All contributions to this fund are tax-deductible and entitle the donor to receive publications of the University and the Alumni Association, including the *Alumnus Magazine*, which is issued bi-monthly except during the summer.

Homecoming, in the fall, and Alumni Day, during Commencement Week, are the two major events of the year on campus for alumni. Periodic reunions of all graduating classes are held on these two days. Meetings also are held throughout the country by alumni living in local areas.

The Alumni Association maintains permanent records of all former students of the University and a full-time office staff on the campus. If the current address or other information is needed about a former student, correspondence should be addressed to the B.Y.U. Alumni Association, B.Y.U. Alumni House, Provo, Utah. Alumni visiting the campus are invited to visit the Alumni offices in the new Alumni House and to make the building their headquarters while in the area. This building, completed in the fall of 1961, is the "home on campus" for B.Y.U. alumni and their families.

The Alumni Association is a member of the American Alumni Council, an organization composed of alumni associations of all the major universities and colleges in the United States, Canada, and Mexico.

## Brigham Young University Destiny Fund

On November 4, 1957, the First Presidency announced the establishment of a long-range gift development program to be known as the Brigham Young University Destiny Fund. The objective of this program is first to raise \$5,000,000 from the people most closely associated with the University—students, faculty

and staff, alumni, and friends, both in and out of the Church. With this tangible evidence of loyalty, the program then will be extended to corporations, foundations, and other sources. William Noble Waite, assistant to the President, is in charge of University development and the raising of funds for Brigham Young University and the Church Educational System. This fund-raising program is known as the Destiny Fund.

## **Security and Traffic**

The Security Office is a protective agency established for the benefit of students, faculty, and staff. It maintains effective liaison with the local police department, and is entrusted with the proper enforcement of campus rules and regulations. All matters concerning security or requiring police action should be referred to this office.

Another major responsibility of the Security Office is the control of campus motor vehicle traffic and parking. In each academic year University staff members and students who regularly or occasionally operate motor vehicles in Utah County shall register any such motor vehicles with the University Traffic Department. In the case of students this a registration for identification only, not a parking permit. All staff members and students who plan to park on University parking lots between 7 a.m. and 5 p.m. on school days must display a parking permit on their motor vehicles. The student parking fee is \$5.00 per year.

The Security Office also offers many other services to all students and staff members, including a Lost and Found Department; the taking of fingerprints necessary for teaching certificates, government jobs, and A.F.R.O.T.C.; and an ambulance service in connection with the Student Health Center.

All campus roads will be closed on Labor Day each year to preserve the private ownership thereof.

## **Important Notice to All Students Who Own or Operate Motor Vehicles**

IF you are temporarily residing in Utah for the primary purpose of attending B.Y.U. and intend to return to your home state after the completion of your studies, AND

IF your home state exempts nonresident students from paying for the licensing of their motor vehicles in that state, AND

IF you have duly registered your vehicle in your home state and paid the taxes there,

### **THEN YOU MAY**

- (1) obtain a certificate from the B.Y.U. Admissions and Records Office evidencing the fact that you are a nonresident student in good standing; and
- (2) present that certificate to the Utah State Tax Commission (Room 102 in the County Building in Provo) and, upon proper application, receive, without charge, a nonresident permit to operate your motor vehicle in this state for the term of your current B.Y.U. registration.

If you are not entitled to the nonresident permit mentioned above, your vehicle must be registered in accordance with the Utah laws.

Attention is called to the possibility that legal difficulties may be encountered by any student who obtains a nonresident automobile permit and votes or hunts as a Utah resident.

Every student who is a resident of Utah and every nonresident student who is in Utah for more than 60 days is required to have a Utah Operator's License before he may legally operate a motor vehicle on the highways of this state. This license may be applied for at Room 101 in the County Building in Provo. The cost is \$2.00.

# Auxiliary Services

The University has a number of business units which operate as part of the services provided for students and faculty. As a matter of general policy, these business units operate on a self-sustaining basis. They include functions such as housing, feeding, printing, motion picture production, purchasing, warehousing, receiving, mail service, creamery products, laundering, bookstore, and farm management.

## Student Housing

The business and financial aspects of student housing, on campus and in the Provo community, are supervised from the Office of Student Housing. For details concerning these services, including housing rates, refer to the section of this catalog titled "Student Housing."

## Food Service

Regular meal service is provided for students at five different cafeterias on campus. Four of these are operated as part of the board and room service of residence halls. It is possible for students living off campus to buy meal tickets at reduced prices and eat in three of these places. The fifth cafeteria is in the Joseph Smith Building, where meals are served at reasonable prices either for cash or by reduced rate scrip books. In addition, board and room students may participate in a supplemental food program costing approximately \$80 a year more than the regular board and room rates by contacting the Office of Student Housing.

The University operates three snack bars, one in the Joseph Smith Building, a second in the George Albert Smith Fieldhouse, and a third in the Helaman Halls Cannon Center. Food is available in them throughout the day. Food may be secured through vending machines located throughout the campus. Costs of meals and food service are kept as low as possible, consistent with sound operating management.

The University also operates a creamery where milk, ice cream, and other dairy products may be purchased by students and faculty at very favorable prices. Students preparing their own meals find this service both desirable and economical.

## Photo Studio

Located in the Eyring Science Center is a modern, fully-equipped portrait and commercial photo studio, established to provide economical photographic service to students, faculty, and administrative departments. The best in modern production equipment is utilized to make possible efficient and high quality photographic workmanship. This studio has served the campus for twenty-five years. Any student or faculty member may take advantage of the services offered by this up-to-date department.

## Post Office

The Postage and Mailing Department is located in the Student Service Center. Its function is to pick up and deliver all of the inter-campus mail, and to pick up and meter all of the outgoing U.S. mail. Two deliveries and three pickups are made each day on the campus.

Directory service is available for all mail addressed to Brigham Young University that does not indicate the department for which it is intended. This is true also for mail sent to students c/o Brigham Young University. Whenever possible, mail should show a definite address for students and should be addressed to a specific room and building for faculty and staff to avoid special handling and delay. Mail will then be delivered direct to the proper address or building by the U.S. postal carrier.

A U.S. Post Office branch (Station 1, Provo) is located in the Student Service Center, where students can pick up and send mail. Individual rental boxes are available for student use.

## **Purchasing Department**

The Purchasing Department is located in Room C-144 of the Abraham O. Smoot Administration and General Services Building.

Its services are designed to relieve faculty, other members of the University staff, and the associated students from certain duties of procurement. Through this department all purchase orders are issued for equipment, supplies, and services for the University, with the exception of library books, which are ordered by the library on special purchase orders.

## **Stores and Receiving**

The Stores and Receiving Department is located in the metal quonset hut directly east of the Harvey Fletcher Engineering Laboratory Building. All deliveries are made here, and materials received are inspected (with the exception of drugs, chemicals, zoological specimens, and delicate scientific instruments, which go directly to the department using them) before being delivered to the various ordering departments.

## **B.Y.U. Bookstore**

The B.Y.U. Bookstore is located in the Herald R. Clark Student Service Center just east of the science building. It is centrally located, making it convenient for students to purchase their books, school supplies, gifts, and a few accessories conveniently, and with little loss of time.

The bookstore is the official University outlet for books and supplies on the campus. It is a department of the University with policies established by the University. Any profit made by the store goes to the University to be used as the President and Board of Trustees authorize.

In this modern setting, every effort is made to operate the store as an example of good retailing practice, and in service to the University family.

## **University Press**

The University has modern and complete facilities for the production of both offset and letterpress printing. The twenty-five odd print jobs completed in an average day's production are representative of all types of printing needs. The press is responsible for the printing of the student daily newspaper, the yearbook, the literary magazine, and numerous catalogs, brochures, bulletins, and office forms.

## **Motion Picture Production**

The Department of Motion Picture Production has been established to produce documentary, historical, and training films for use in the Church and in schools. A correlated program with drama, music, art, writing, and all creative departments on campus is used to produce films for instruction, television, and public relations.

# Colleges

Each college in Brigham Young University is an undergraduate college which offers work for the bachelor's degree only. All work beyond the bachelor's degree, in every department, is under the direction of the dean of the Graduate School.

## College of Biological and Agricultural Sciences

Rudger H. Walker, Dean (106 HGB)

The departments in the College of Biological and Agricultural Sciences fall naturally into two primary divisions: biological sciences and agricultural sciences.

### DIVISION OF AGRICULTURAL SCIENCES

Included in the Division of Agricultural Sciences are the Departments of Agricultural Economics, Agronomy, Animal Husbandry, and Horticulture and Horticultural Specialties. Students taking their major work and supporting courses in these departments and in the related basic sciences may prepare themselves for successful careers in agriculture.

Agriculture always has been America's basic industry, and is more important today than ever.

The agricultural industry has developed as rapidly as other industries in America in mechanization and efficiency of production. The men and women engaged in agricultural production and marketing and in the related agricultural industries must have an understanding of the new scientific and technological developments that have taken place in agriculture. This, along with practical experience, will better prepare them to serve as farm managers and operators and as technicians in the various phases of agricultural production, marketing, research, education and in the related agricultural industries.

All students interested in agriculture will be given an opportunity to obtain a broad understanding of the various phases of agriculture. In addition, they may choose to specialize by taking a major in one of the departmental curricula. Students may choose a course of study that will prepare them for farm and ranch operation and management, for employment in related agricultural business or industries, for employment with governmental organizations under civil service, or for teaching and research. For certain kinds of work it will be necessary to place strong emphasis on preparation in the basic sciences and on graduate study for an advanced degree.

Students who have had a background of farm experience and training in vocational agriculture in high school, and who are interested in agriculture and think they would enjoy working in the agricultural professions, are encouraged to register in the College of Biological and Agricultural Sciences. Students who prepare themselves well usually have little or no difficulty in finding satisfactory employment.

### PRE-VETERINARY COURSE

Adviser: Keith H. Hoopes

Students planning to enter veterinary school may take their pre-veterinary training at Brigham Young University.

Certain basic entrance requirements are common to all of the veterinary schools in the United States. The courses listed below are designed merely as a guide to help the student fill these basic entrance requirements. In connection

with his pre-veterinary curriculum the student is strongly urged to work toward a bachelor's degree, including course work in animal husbandry and the basic sciences. A bachelor's degree intensifies the student's ability to understand the principles of veterinary medicine, increases his chances of acceptance into a veterinary school, and provides an alternative should the student fail to enter veterinary school.

The student is advised to consult the catalogs of veterinary schools of his choice for specific entrance requirements that may affect him. Attention also is called to the general University requirements for graduation. Students planning to enter veterinary school are not exempt from these general education requirements.

The following courses are included in the entrance requirements of most veterinary schools:

English 111, 112

Mathematics 101, 111

Chemistry 111, 112, 113, 221, 351, 352

Zoology 212, 213

(Students who have not had adequate training in high school biology or who fail to perform satisfactorily in the biology section of the entrance examination should first register for Zoology 105.)

Physics 201, 202

Botany 101

Bacteriology 121

Animal Husbandry 153, 207

### DIVISION OF BIOLOGICAL SCIENCES

Included in the division of biological sciences are the Departments of Bacteriology, Botany, and Zoology and Entomology. Students may take courses in any one of these departments to meet their general education requirements for studies in the biological sciences, or they may choose to major in one of these departments.

Courses offered in these departments provide an opportunity for students to obtain a general understanding of the fundamental principles of plant and animal life and the relationships of plants and animals to man and the world in which he lives. Consideration is given to the economic plants and animals used in agriculture and industry, the native and wild plants and animals, the beneficial and injurious insects and micro-organisms, and the parasites responsible for the diseases of plants, animals and man. The conservation of our natural resources and the management of forest and range lands and wildlife resources are studied. Specialized courses are offered in each of the several branches of the biological sciences for those students who wish to major in one of these fields. Preparation for teaching and research is emphasized.

Students interested in medical technology, medicine, dentistry, forestry or veterinary science may obtain their pre-professional training in the Division of Biological Sciences. Suggested curricula to serve as a guide for students who wish to prepare for these professional fields are shown below.

### PRE-FORESTRY COURSE

Adviser: Kent H. McKnight

Students may prepare themselves for training in forestry by taking the pre-forestry curriculum during their first two years of college work. This program is under the supervision of the Department of Botany.

During the freshman and sophomore years students are registered for the basic science courses and the general education courses required for training in forestry. Upon completion of this pre-forestry program they may enroll in a professional forestry school for their major work.

Students should consult the faculty adviser of the pre-forestry curriculum for detailed information and for assistance in developing their class schedule for registration.

**RANGE MANAGEMENT COURSE**

Adviser: Earl M. Christensen

Administration of the range management program is under the direction of the Department of Botany, but the range curriculum is drawn from courses offered in several cooperating departments. The complete course requirements are given in the Botany Section of this catalog.

Students should consult the faculty adviser in range management for detailed information and for assistance in developing their class schedules for registration.

**PRE-MEDICAL-DENTAL COURSE**

Advisory Committee: A. Lester Allen (chairman)

It is strongly recommended that the student select course work that will lead to a bachelor's degree in zoology, bacteriology, chemistry, sociology, psychology, or a related field. This will give him the broad background desired by the medical and dental schools and also will prepare him to enter an alternative field in the event he is not admitted to medical or dental school. If a student intends to enter a professional school after only three years of pre-medical or pre-dental studies, he should follow the basic medical sciences option in zoology to be eligible to receive a baccalaureate degree after completion of the first year of medical or dental school.

Three years of work, including the following courses, will satisfy the minimum requirements of most medical or dental schools, although preference usually is given to college graduates. The student is advised to consult professional school catalogs to be sure that specific requirements of the schools of his choice are met. Such requirements may be somewhat more or less than those suggested below.

English 111, 112

Mathematics 101, 111

Chemistry 111, 112, 113, 221, 351, 352, 354, 355

Zoology 105, 212, 213, and 363 or 373

Physics 201, 202, 303

The remaining units should be completed in general education and course work leading to a bachelor's degree.

**MEDICAL TECHNOLOGY**

Adviser: Richard D. Sagers

See detailed curriculum under the Department of Bacteriology in the "List of Courses" section of the catalog.

**PRE-OPTOMETRY COURSE**

Advisory Committee: A. Lester Allen (chairman)

The requirements for admission to schools and colleges of optometry are not identical. Typically, the requirements include courses in English, mathematics, physics, chemistry, and biology or zoology. Some schools have varied requirements in psychology, social sciences, literature, philosophy, and foreign language.

The pre-optometry requirements represent a minimum of two academic years of study, all of which may be taken on this campus.

**PRE-PHARMACY COURSE**

Advisory Committee: A. Lester Allen (chairman)

The first year of the curriculum of the pharmacy school may be completed at this campus. For specific details the student should consult the chairman of the pre-pharmacy committee.

## College of Business

Weldon J. Taylor, Dean

The following departments are in the College of Business:

Accounting  
Business Education and Office Management  
Business Management  
Economics  
Statistics

The purpose of the College of Business is to provide educational experiences which will enable the student to acquire a broad understanding of the inter-relations between the business firm, the economy, and society; offer sufficient specialization to enable the student to find a rewarding position in the business world; and assist the student in developing a sense of business ethics.

The program is directed toward the achievement of the following specific objectives:

(1) Developing skill in the use of quantitative data and theoretical tools in analyzing the problems and policies of the economy and the business firm.

(2) Developing an understanding of the human and social aspects of business.

(3) Assisting the student to develop those emotional and intellectual capacities which will foster mature and competent judgment.

(4) Stimulating both students and faculty members to engage in research and other creative activities to the full extent of their ability and resources.

(5) Helping the student acquire the capacity to communicate ideas orally and in writing.

In order that all students who plan to graduate with a major in any of the departments in the College of Business (except business teaching majors) may benefit from a common background of basic information and tools to facilitate their advanced work, they are required to take the core courses listed below. These courses form a basic training normally to be completed during the first three years of college work and before the student undertakes specialization in his major area.

Accounting 131, 201 or 211, 202 or 212, and 342 .....	11 hours
Business Management 340, 347, and 348 .....	9 hours
Economics 111, 112, and 345 or 346 .....	8 hours
Statistics 221 .....	3 hours

All majors in the College of Business must complete Accounting 131 or the equivalent in mathematics as applied to business. Students will be classified on the basis of performance in the placement test in mathematics given to freshmen. Those whose scores indicate proficiency in mathematics may be exempted from Accounting 131. Satisfactory completion of Mathematics 111 may also be substituted for Accounting 131. Other students will be placed in sections of Accounting 131 which meet two days per week. Those students whose scores indicate deficiency or weakness in mathematics will be placed in sections of Accounting 131 which meet three hours per week, but which carry only two hours of credit. When appropriate, students will be requested to take remedial high school algebra prior to registration for Accounting 131.

B.E.O.M. majors may make the following substitutions: B.E.O.M. 305 for Business Management 340; Economics 274 for Economics 345; Economics 453 for Business Management 348.

Economics 111 and 112 listed above apply toward the University general education requirements in the social sciences.

Consistent with objective (5) above, it is recommended that all College of Business students take B.E.O.M. 320.

### M.B.A. PROGRAM

In response to a growing demand for responsible and creative leadership in our business and industrial society, the University has developed a professional program leading to the awarding of a Master of Business Administration degree. This program is designed to serve qualified students from all areas of the University regardless of their undergraduate major. Students contemplating an M.B.A. degree are advised to take a broad program in their undergraduate work. For further information, contact the director of the M.B.A. Program.

## College of Education

Antone K. Romney, Dean (118 McKay)

A. John Clarke, Assistant Dean

The College of Education has as its principal function the educating of teachers, counselors, school librarians, principals, supervisors, superintendents, and other professional workers in education.

The following departments are in the College of Education:

Teacher Education

Graduate Department of Education

**Office of Educational Research.** In addition to the above departments, the College of Education has established an Office of Educational Research. This office will conduct research projects approved by the college and will assist in conducting other educational research projects, stimulate research on educational problems on the part of faculty members, students, and others. It will assist in the planning of research projects being carried out at the University, in school districts of the area, by other educational groups or agencies. It will also assist by recommending capable consultants from the departments to advise and supervise such projects. The program will provide some opportunity for graduate students to participate in on-going research projects and assist in planning their own research programs.

**High School Teaching.** A student who plans to prepare for a career in high school teaching and related activities may do so either by registering within the College of Education or by registering in one of the other colleges of the University. In the latter case, he must complete the required professional education courses and the necessary subject-matter and other courses for the teaching certificate under the joint direction of an adviser in the College of Education and an adviser in his major college.

**Elementary School Teaching.** A student interested in elementary school teaching should register in the College of Education immediately. The program is largely prescribed from the beginning of the freshman year. Late entrance into the college may delay graduation and certification beyond the usual four years.

**Teaching as a Second Career.** A student preparing for a career in a field other than teaching may provide himself with a second possibility for employment by meeting the requirements for certification as a teacher while he is completing the other preparation. By planning early in his career, he may do this within the usual scope of the baccalaureate program and with little or no interference with the major program. It should be noted that at present this is particularly feasible for high school teaching, where depth of preparation in two or three subject-matter fields is desired, but it also may be possible under special arrangements in the elementary school program.

**Early Decisions Desirable.** In either case, the student is urged to make the decision as early as possible in his college career to avoid conflicts in the scheduling of courses and to take fullest advantage of the maturing effect produced by spacing the study of teaching over a period of time.

**How to Proceed.** Those who decide to register in the College of Education should transfer to that college at once. All others will register in the colleges in which they are majoring. Every candidate for a teacher's certificate, however, regardless of the college in which he is registered, must have his certification program approved in the Teacher Certification Office, Room 111 McKay, before he enters the first course in the professional education sequence.

**Cycle Organization.** To insure adequate facilities and opportunity to take classes, it has been necessary to organize the programs of the College of Education into cycles. Students in elementary education enter the cycles as beginning freshmen according to alphabetical listing of surnames. Students in secondary education are placed in the appropriate cycle according to subject-matter department. Inquiries concerning the proper cycle may be made in Room 111 McKay.

Because it is necessary to keep the cycles balanced, students will not be admitted to the first course without proper approval of their programs.

Students not meeting the academic and other standards of the University may be asked to withdraw from the teacher certification program.

All students in the teacher certification program will be required to meet minimum standards in speech and hearing. Speech and hearing tests may be given as part of the course requirements in the first course in the certification cycle.

Each student who undertakes preparation for teaching will be provided with a brochure describing the requirements and procedures. He will be expected to keep a record of his program and his progress.

**How to Become Certified.** A student who completes the certification requirements set forth by the College of Education, regardless of the college in which he is registered, is eligible for a certificate issued by the Utah State Board of Education. Certification is approved by that board after application for certification has been made personally by the student through the dean of the College of Education, who in turn recommends the student to the state board.

All students who have met the requirements of the state and University are recommended when they apply for certification. Application should be made by all students who are successfully completing their requirements upon completion of 94 semester hours of credit. Applications should be picked up in and returned to the Teacher Certification Office, 111 McKay.

**Students expecting to graduate in June should file their completed application with the Teacher Certification Office not later than January 15, and students expecting to graduate in August should file their application not later than March 15.**

A student may prepare himself to be certified as any of the following:

- Teacher in kindergarten
- Teacher in elementary schools
- Teacher of special classes for handicapped children
- Teacher in secondary schools
- Teacher of industrial arts in secondary schools
- Teacher of vocational homemaking in secondary schools
- Teacher of unit shops in industrial arts
- Supervisor and administrator of industrial technical education
- Librarian in secondary schools
- Counselor
- Administrator-supervisor in elementary schools
- Administrator-supervisor in secondary schools
- Superintendent

**Certification in Other States.** Students planning to teach in states other than Utah should check with the Teacher Certification Office, 111 McKay, for the special requirements of those states.

**First Certification Requirements.** Certification of teachers is a function of the Utah State Board of Education. The Board of Education publishes require-

ments for certification in booklet form and in supplements. The present policy of the board is one of stating minimum requirements in general terms. This is done to encourage the institutions that prepare teachers to engage in continuous study of the requirements, going beyond the minima in whatever ways seem desirable. While the board is always able to certify a candidate without recommendation from a university, it chooses to require the recommendation of the officer in charge of teacher preparation in each institution. This requirement is of assistance not only to the state board, but also to the institution because of the assurance that its efforts to improve the program of preparation will not be made ineffective by the ready availability of ways of going around the minimum requirements.

Alterations in the requirements may be made from time to time. They will not be made retroactive in the case of any student, but may be made to apply to uncompleted portions of his program where this can be done without difficulty.

**Requirements for a Second Certificate.** An individual who has met the requirements for a general elementary school certificate may obtain a general secondary school certificate by meeting certain additional requirements. The state's requirements for subject-matter major, minor, or composite teaching major must be completed. In addition, the individual must complete certain courses in methods of teaching and in student teaching at the secondary school level. An individual who has met the requirements for a general secondary school certificate may obtain a general elementary school certificate by completing certain courses in methods of teaching and in student teaching at the elementary school level. Specific instructions for these programs are available in the Teacher Certification Office, Room 111 McKay.

**Fifth-Year Program for Teachers in Service.** Advancement in teaching, both professionally and economically, requires study in some depth beyond the bachelor's degree. State departments of education increasingly are raising certification standards to the level of a five-year preparation program. To meet this need Brigham Young University offers a carefully planned fifth-year program. It consists of the equivalent of a master's major or minor in professional education, with a major or minor in the teacher's subject-matter field. Details of the program may be had through the Teacher Certification Office, Room 111 McKay. The program outlined by the University will meet the requirements of the five-year professional certificate of most states.

**Selection of Candidates.** Candidates for certification as teachers should expect to be carefully selected, even though their interest in certification is secondary to another career at the time. Only individuals of high caliber who have acquired a substantial general education, whose mastery of their major and minor fields is unquestioned, and whose personal character reflects the best ideals of our culture will finally be recommended for certification.

The selection of those who will be finally recommended for certification is a continuous process. It begins when the student first announces his intention of seeking certification. It continues through all stages of his education. Among other things, it is necessary to maintain a Brigham Young University cumulative grade-point average of 2.25 or better to remain in the program ("C" = 2.00).

No course in a student's secondary teaching major, teaching minor or composite teaching major in which he receives a grade of "D" will count for certification unless he has at least a 2.5 grade-point average in courses taken from that department, and also has the approval of the chairman of that department. If the student does not have this 2.5 grade-point average, he must repeat the class for which he received a "D" or take additional hours of the class if elective for the teaching major or minor.

**Students Transferring from Other Colleges.** To transfer from another university to the College of Education at Brigham Young University the student must have a cumulative grade-point average of 2.25 or better.

Students transferring to the College of Education from another college within Brigham Young University must have a Brigham Young University cumulative grade-point average of 2.25 or better.

To continue to take sequence courses in professional education or to remain in the College of Education, the student must maintain both a Brigham Young University cumulative grade-point average and a semester grade-point average of 2.25 or better.

**Special Education.** Utah has recently adopted a certification program in special education, with specialization provided in the following areas: children with intellectual handicaps, children with motor handicaps, children with speech and hearing handicaps, and children with academic handicaps. To be certified in Utah the individual must have a valid teaching certificate, plus appropriate experience, and must complete specified graduate study in the chosen area. Students interested in speech and hearing correction should contact the Speech Department. All others should consult the Graduate Department of Education.

**Personnel and Guidance.** Certification as a school counselor in Utah requires approximately one year of graduate work in personnel and guidance plus two years of successful teaching experience. For course listings in this area, see the Graduate Department of Education.

### PREPARATION OF ELEMENTARY SCHOOL TEACHERS

The College of Education offers a comprehensive program which will satisfy requirements for an elementary teaching certificate as well as graduation requirements for students registered in the College of Education. The candidate for certification must meet University graduation requirements.

The program consists of four elements:

1. The arts and sciences major for elementary school teachers, which also satisfies the University requirements in general education.
2. The professional preparation, which includes 32 semester hours of designated professional education courses, constituting a major in elementary education.
3. The group electives, by the judicious use of which the student may add a subject-matter minor, if he so desires, thus materially contributing to his academic preparation and his chances for employment.
4. University requirements in religion, English, and health.

#### 1. The Arts and Sciences Major (60-62 hours).

Required courses and elective courses with the major are listed below:

##### a. Biological Sciences (9 hours).

- (1) Required (6 hours): Bacteriology 121; Botany 101 or Zoology 105.
- (2) Elective (3 hours): Bacteriology 311; Botany 105 (recommended), 176, 205, 460; Foods and Nutrition 115; Zoology 176, 230, 315 (recommended), 357. If Botany 101 is chosen, the elective must be in zoology. If Zoology 105 is chosen, the elective must be in botany.

**Note:** Those passing the entrance examination in fundamentals of biology should substitute courses from the elective list for Botany 101 or Zoology 105.

##### b. Humanities and Aesthetics (22 hours).

Required (22 hours): Art 110, 226; three semester hours chosen from English 250, 260, 270, 355, 356, 357, 358; History 360, 366; Education 324 or 325, 340; Music 112, 237; Dramatic Arts 121.

##### c. Physical Education (4 hours).

- (1) Required (2 hours): Physical Education 375 or 376.
- (2) Elective (2 hours): Any 100 series physical education course. Physical Education 181 and 182 are recommended for elementary education majors.

- d. Physical Sciences (10 hours).  
Required (10 hours): Chemistry 100, Geology 101, Physics 100; or 137 or 127; or Physical Science 101, 102, Geology 102, Math 305.
- e. Social Sciences (15 hours).
- (1) Required (12 hours): Any four of the following five courses: Geography 120; Economics 101; Political Science 110; Psychology 111; Sociology 111.
  - (2) Elective (3 hours): Anthropology 101; Economics 461; Geography 101, 211, 231; Political Science 105; Psychology 340; Sociology 112, 383, 389, 512. History 170, required for graduation, may also be used to satisfy the elective requirement in this area.

**Note:** Students exempt from History 170 must take History 121.

## 2. The Major in Elementary Education (32 hours).

Ed. 301. Basic Concepts of Teaching .....	2 hours
Ed. 310. The State, the School, and the Teacher .....	2 hours
Ed. 320. Elementary Teaching Procedures .....	3 hours
Ed. 321. Reading in Elementary Schools .....	3 hours
Ed. 322. Arithmetic in Elementary Schools .....	2 hours
Ed. 403. Development and Learning .....	4 hours
Ed. 405. Analysis of Teaching .....	2 hours
Ed. 406. Teaching Materials Laboratory (Audio-Visual Aids) .....	2 hours
Ed. 415. Educational Values .....	2 hours
Ed. 449. Elementary Student Teaching .....	8 hours
Health Ed. 361. Health Education for Elementary Teachers .....	2 hours

**Note:** Ed. 422, H.D.F.R. 322, 412, and 422 are required for H.D.F.R. majors and the Utah kindergarten efficiency certificate. Ed. 422 is required for certification for California kindergarten-primary level.

## 3. Elective (10-30 hours, depending on the number of hours taken each semester).

Electives may be used to add a subject-matter teaching minor. See "Subject-Matter preparation of Secondary School Teachers" below or see Teacher Certification Office. Sufficient electives must be taken to bring the total to 128 hours.

## 4. University requirements not covered by the majors or the electives (25-27 hours). See the general education requirements in the Student Academic Services section of this catalog.

- a. Religion (16 hours).
- b. Freshman English (4 or 6 hours).
- c. Health 130 (2 hours).
- d. History 170 (3 hours).

**Cycles.** Copies of the cycles with complete programs for all four years are available in Room 111 McKay (Teacher Certification Office). Students enter the cycles according to alphabetical order.

**Students on Former Programs.** Students who have been working toward certification on former programs are requested to consult with personnel of the Teacher Certification Office for counseling with respect to the completion of requirements.

## PREPARATION OF SECONDARY SCHOOL TEACHERS

The College of Education offers professional courses leading to secondary certification. Students desiring certification in this area must complete course requirements in the following areas:

1. **General Education.** See the general education requirements in the Student Academic Services section of this catalog.
2. **An approved teaching major and minor, or composite major.** (See below.)
3. **Professional Education.** The following required courses fill the state requirement for professional education. Courses must be taken in the sequence shown below, except that Health 362 and Ed. 310 may be taken at any time. Ed. 403, 405, 406, and 415 may be taken concurrently. For course prerequisites check course descriptions.

Ed. 301. Basic Concepts of Teaching .....	2 hours
Ed. 310. The State, the School, and the Teacher .....	2 hours
Ed. 377. Secondary Teaching Procedures .....	3 hours
Ed. 403. Development of Learning .....	4 hours
Ed. 405. Analysis of Teaching .....	2 hours
Ed. 406. Teaching Materials Laboratory (Audio-Visual Aids) .....	2 hours
(Required for California certification; recommended but not required for Utah teachers)	
Ed. 415. Educational Values .....	2 hours
Ed. 479. Secondary Student Teaching .....	8 hours
Health 362. Health Education for Teachers .....	2 hours

### Subject-Matter Preparation of Secondary School Teachers

The University offers two approaches to certification. One consists of the traditional teaching major and teaching minor, while the other consists of a composite teaching major.

**Prerequisite for Student Teaching.** As a prerequisite for student teaching, students seeking secondary certification must complete at least 15 semester hours in their teaching major and 10 semester hours in their teaching minor, or 25 semester hours in their composite teaching major.

**Preparation of Teachers of the Core Curriculum.** One pattern of curriculum organization in the public junior high schools is the core curriculum. The most common combination in the core curriculum is history of social studies and English. To increase a teacher's employability and preparation for junior high school teaching, it is therefore recommended that a major in history be combined with a minor in English, or a major in English with a minor in history.

**Teaching Major and Teaching Minor.** A teaching major consists of 24 or more hours of designated courses in a subject taught in Utah high schools and approved by the College of Education. A teaching minor consists of 16 or more hours of designated courses in a subject also taught in the secondary schools of Utah and approved by the College of Education. The 24-25 hour groups listed in the following material are approved for the teaching major; the 16-30 hour groups listed in the same section are approved for the teaching minor.

These subjects are approved as either teaching majors or minors (please note exceptions):

Accounting	French
Art	
Botany	General business (minor only)
Business Education	Geography
	Geology
**Chemistry	German
Craftwork (minor only)	
Drawing (minor only)	Health education
	**History
*Economics	
Electricity (minor only)	**Industrial education and drawing
**English	
	Journalism

Latin	Recreation (minor only)
*Library science (minor only)	Russian
**Mathematics	**Safety and driver education
Metalwork (minor only)	(minor only)
**Music education (minor or composite major only)	Spanish
	Speech
**Physical education	*Sociology
**Physics	Woodwork (minor only)
*Political science	Zoology
*Psychology	

\*If elected as a major or minor, the other subject must be one marked \*\* above. However, a minor in economics may be used with a business education major.

**Composite Teaching Major.** A composite teaching major consists of work in three subjects in the same general field totaling at least 40 hours, with 16 or more hours of designated courses in a dominant subject, and 12 or more hours of designated courses in each of two related subjects in the same general area. For guidance in selecting and completing a composite teaching major, students must consult with the Teacher Certification Office, Room 111 McKay, whose responsibility it is, under cooperative advisement with the academic departments to administer composite majors. Only those general fields listed below may be selected for a composite teaching major.

Any deviation from the academic programs as outlined must be approved in writing by the chairman of the subject-matter department concerned and by the Teacher Certification Office, Room 111 McKay, and filed with the student's permanent records in the College of Education.

The following general fields may be used for composite teaching majors. With the exception of agriculture, three subjects of those listed in each field (a dominant and two related subjects) constitute a composite teaching major. With only those exceptions noted, any subject in the general field may be chosen as the dominant. In the agriculture composite, one dominant and three related subjects are required.

Substitution of other subjects within the general field is not acceptable.

Accounting and office management:

Accounting  
Economics  
Business education

Agriculture:

Agricultural economics  
Agronomy  
Animal husbandry  
Farm mechanics

Homemaking Education

Language arts:

English  
Journalism  
Speech

Mathematics and physical sciences:

Chemistry  
Geology  
Mathematics  
Physics

Music education

Health, physical education, and recreation:

Health  
Physical education  
Recreation  
Safety and driver education

Social sciences:

Geography, history, and one of the following:

Economics  
Political science  
Psychology  
Sociology

### **Courses Required for Teaching Majors, Teaching Minors, and Composite Teaching Majors**

#### **Accounting:**

- 25-hour list (Major): 201 or 211, 202 or 212, 301, 302, 312; and 6 or more hours selected from 255, 342, 420, 575, B.E.O.M. 206.
- 16-hour list (Minor or dominant subject): 201 or 211, 202 or 212; and 10 or more hours selected from 255, 301, 302, 312, 342, 420, 575.
- 12-hour list (Related subject): 201 or 211, 202 or 212; and 6 or more hours selected from 255, 201, 302, 312, 420.

#### **Agricultural Economics (Farm management) (For use in agriculture composite only):**

- 17-hour list (Dominant subject): 101, 325, 410; 6 hours chosen in consultation with the department chairman from 320, 360, 425, 580.

**Note:** Certain statistics classes may be substituted in the optional list by the department chairman. Ten hours of upper division credit are required.

- 12-hour list (Related subject): 101, 325; and 5 hours selected from 350, 360, 410, 425, 580.

#### **Agricultural Mechanics (Farm shop) (For use in agriculture composite only):**

- 17-hour list (Dominant subject): Industrial Education 100, 125, 188, 210, 341; and 4 hours selected from Industrial Education 120, 130, 139, 189, 218, 317, and Drawing 111.

- 13-hour list (Related subject): Industrial Education 100, 125, 188, 210, 341.

#### **Agronomy (For use in agriculture composite only):**

- 16-hour list (Dominant subject): 141, 251, 440; 6 hours selected from 302, 305, 308, 311, 451, 455, 459.

- 12-hour list (Related subject): 141, 251; 5 hours selected from 305, 308, 311, 440, 451, 455, 459.

#### **Animal Husbandry (For use in agriculture composite only):**

- 16-hour list (Dominant subject): 153, 207; and 10 or more hours selected from 161, 170, 311, 312, 325, 335, 340, 345, 370.

- 12-hour list (Related subject): 153, 207; and 6 or more hours selected from 161, 170, 311, 312, 325, 335, 340, 345, 370.

#### **Art:**

- 55-hour list (Composite major): Starred (\*) courses must be completed before attempting upper division work.

Basic requirements: \*121, \*122.

General requirements: 310 and at least 6 hours selected from 306, 307, 308, 403, 405.

Dominant and supporting fields: The student will complete 16 hours in one of the following three groups as a dominant field and 12 hours in each of the other two fields.

1. Crafts (Plastic and graphic): \*250, \*256, \*263, 312, 350, 352, 356, 358, 359, 361, 362, 366.

2. Drawing and painting: \*227, \*233, 321, 322, 327, 329, 333, 335, 474, 476, 580, 582.
3. Commercial art and interior design: \*239, 314, 341, 342, 343, 415, 417, 447, 448, 544, 546.

40-41 hour list (Major): Starred (\*) courses must be completed before attempting upper division work except art history. Lower division: \*121, \*122, \*227, \*233, \*239, \*250, \*256, \*263. Upper division: 310, 321, 322, 341 or 312, 350 or 352, 356, 361, 366; at least 6 hours selected from 306, 307, 308, 403, 405.

26-hour list (Minor): Starred (\*) courses must be completed before attempting upper division work: \*121, \*227, \*233, 239, \*250, 256, \*263, 306, 310, 314; and 4 hours selected from 312, 321, 359, 362, 366.

### **Botany:** (Biology major for secondary teachers):

**Note:** The preparation and certification of teachers in biology in secondary schools is a cooperative program between the departments dealing with the biological sciences and the College of Education. Prospective biology teachers must complete either a botany major and zoology minor, or a zoology major and a botany minor.

28-hour list (Botany major): Botany 101, 110, 201, 205, 321, 331, 376, 378, 390 or 490, 440, 450.

19-hour list (Zoology minor): Zoology 105, 230, 261, 343 or 345, 346, 347, 372.

**Note:** Bacteriology 321 and 322 are also required.

Required supporting course for biology teachers: Mathematics 101, 111; one year chemistry beyond Chemistry 100, preferably Chemistry 111, 112.

Recommended supporting courses: Agronomy 141; Bacteriology 501; Botany 335, 455, 460; Geology 111, 112; organic chemistry.

16-hour list (Botany minor): 101, 105, 110, 201; 6 hours selected from 205, 321, 376, 440, 450, 460.

### **Business Education:**

51-hour list (Composite major): 203, 204, 206, 220, 300, 305 or 320, 311 or 313, 315, 370, 475, 485 or 486, and enough hours selected from courses offered in the College of Business to total 51 hours, chosen in consultation with the department chairman.

35-hour list (Major): 203, 204, 206, 220, 300, 305 or 320, 311 or 313, 315, 370, 475, 485 or 486, and at least 6 hours selected from courses offered in the College of Business exclusive of the teaching minor.

**Note:** In order to qualify for a teaching major in business education, graduates of the College of Business must complete either the composite major above or (a) the teaching major and a teaching minor in the College of Business and (b) Accounting 201 and 202, or 211 and 212; and Economics 101.

17-hour list (Minor): 204, 206, 220, 305 or 320, 315, 370.

### **Chemistry:**

32-hour list (Major): 111, 112, 113; 22 hours selected from 321, 322, 351, 352, 354, 355, 461, 504, 514, 581, 591.

16-hour list (Minor or dominant subject): 111, 112, 113; 6 hours selected from 221 or upper division courses in chemistry.

13-14 hour list (Related subject): 111, 112, 113; 3-4 hours from 221 or upper division courses in chemistry.

**Note:** Chemistry 105 and 106 will be considered equivalent to Chemistry 111 and 112.

### **Dramatic Arts and Speech:**

33-hour list (Major):

Dramatic Arts: 121, 123, 126, 241, 319; 2 hours from 320 or 321, 325, 460.

Speech: 101, 111, 271, 305, 401, 491\*, 527.

18-hour list (Minor, dominant, or related subject):

Dramatic Arts: 121, 319; one hour from 320 or 321, 325, 460.

Speech: 102, 403, 491\*, 527.

**\*Note:** 491 is required of all majors and minors.

### **Economics:**

26-hour list (Major): 101 or 111, 112, 274, 345; and 14 hours selected from 358, 383, 430, 454, 461, 462, 475, 576, 580.

18-hour list (Minor or dominant subject): 101 or 111, 112, 274, 345; and 6 hours selected from 358, 383, 430, 461, 475, 575, 576.

12-hour list (Related subject): 101 or 111, 274; and 6 hours selected from 358, 383, 430, 461, 475, 575, 576.

### **English:**

30-hour list (Major): 221, 251, 361 or 362, 371 or 372 or 373, 374 or 375, 382 or 582, 490; sufficient electives in **upper-division** English to total at least 30 hours.

**Note 1:** The above program is for English majors who take sufficient work in a foreign language to entitle them to a B.A. degree. Students who study only one year of a foreign language should take 5 additional upper-division hours in English courses, and students who do not study a foreign language should take 10 additional upper-division hours in English courses (making a total of 40). These additional hours should include at least 2 courses selected from the following: English 325, Linguistics; English 426, Semantics; English 521, History of the English Language; English 529, Structure of American English.

**Note 2:** The above program is subject to further modification if the University changes its basic requirements for the B.A. and B.S. degrees.

16-hour list (Minor): 221, 275 and 276, 260 or 361 or 362.

16-hour list (Dominant subject) (For use in language arts composite): Students taking a composite language arts teaching major with English as the dominant subject should complete the same courses in English as outlined above for the teaching minor.

### **French:**

40-hour list (Major): 101, 102, 201, 301, 321, 322, 431, 432; and sufficient hours of electives in the 300 series or above to bring the total to 40 hours.

30-hour list (Minor): 101, 102, 201, 301, 321, 322, and sufficient hours of electives in the 300 series or above to bring the total to 30 hours.

**Note 1:** Up to 16 hours of lower division credit may be waived for those who demonstrate proficiency in the foreign language by examination given at B.Y.U. The department chairman will attest such proficiency in a written statement to the Teacher Certification Office.

**Note 2:** All students who intend to qualify for a teaching certificate must take Language Education 377 in the appropriate language.

### **General Business:** (May not be used as a teaching major)

16-hour list (Minor): 14 of the 16 credits must be in two departments.

Accounting 131 or 132, 201 or 211, 202 or 212; 255, 342.

Economics 101; 274, 345; 461; Geography 231.

Business Management 205, 347, 480, 481.

**Note:** May be used only with a business education major.

### **Geography:**

26-hour list (Major): 101, 211, 231, 351, 504; 2 courses selected from 401, 441, 522, 533; 2 courses selected from 455, 460, 470, 475; and electives to total 26 hours chosen from upper division geography courses.

16-hour list (Minor or dominant subject): 101, 120, 211, 231, 351; 2 hours chosen from upper division geography courses.

12-hour list (Related subject): 101, 120, 231, 351.

#### **Geology:**

26-28 hour list (Major): 111, 112, 251, 252, 306, 311, 502; and 1 course selected from 460, 480, 696.

18-hour list (Minor or dominant subject): 111, 112, 251, 252, 502.

12-13 hour list (Related subject): 111, 112, 501, 502; or 101, 102, 103, 306, 501, 502.

#### **German:**

40-hour list (Major): 101, 102, 201, 301, 321, 322, 441, 442; and sufficient hours of electives in the 300 series or above to bring the total to 40 hours.

30-hour list (Minor): 101, 102, 201, 301, 321, 322, and sufficient hours of electives in the 300 series or above to bring the total to 30 hours.

**Note 1:** Up to 16 hours of lower division credit may be waived for those who demonstrate proficiency in the foreign language by examination given at B.Y.U. The department chairman will attest such proficiency in a written statement to the Teacher Certification Office.

**Note 2:** All students who intend to qualify for a teaching certificate must take Language Education 377 in the appropriate language.

#### **Health:**

26-hour list (Major): Health 121, 325, 381, 521, 560, 530 or 552; Food and Nutrition 115; Zoology 261; Psychology 340; and 6 hours selected from courses that also count in health education: Bacteriology 121; Chemistry 101 or Chemistry 105 or Chemistry 111; Bacteriology 311, Bacteriology 331; E.R.S. 540, E.R.S. 550; Psychology 185, 445, 540, 585; Sociology 449, 370; Zoology 365.

16-hour list (Minor or dominant subject): Health 121, 381, 521, and at least 8 hours selected from the following: Food and Nutrition 115; Bacteriology 311; Psychology 340; Health 325, 530, 552, 560, 561; and Sociology 370. In addition, a student may select 2 hours from the elective courses that also count in health education: Bacteriology 121, 321, 331; Chemistry 101, 105, 111; E.R.S. 540, 550; Psychology 185, 445, 540, 585; Sociology 449; Zoology 261, 365. The student's program is to be established through consultation with an adviser from the department.

16-hour list (Driver and safety education minor): Health 121, 325, 444, 445, and 6 hours selected from the following courses: Health 530, 521, 560; Instruction 406; Psychology 321; industrial education; Sociology 257 in consultation with the chairman of the Department of Health and Safety Education.

12-hour list (Related subject): Health 121, 381, 521, 560; Psychology 340; Foods 115.

#### **History:**

30-hour list (Major): 110, 111, 120, 121, 366; and 16 hours selected in consultation with the chairman of the Department of History.

**Note:** At least 15 hours of the major must be upper division credit.

16-hour list (Minor or dominant subject): 110, 111, 120, 121, 366; and one elective course selected in consultation with the chairman of the Department of History.

12-hour list (Related subject): 110, 111, 120, 121.

**Note:** Students may not use History 170 toward completion of the above requirements unless approved by the chairman of the Department of History.

**Homemaking Education** (Homemaking education may be used only as a composite teaching major; no teaching major or minor alone may be selected from this field.):

42-hour list: Clothing and Textiles 110, 165, 235 or 300, 260; Food and Nutrition 255, 264, 265, 340; Housing and Home Management 250, 330, 335, 351, 370; H.D.F.R. 210, 322, 361; Nursing 288.

### **Industrial Education and Drawing:**

44-46-hour list (Major): \*Drawing 109, 110, 111; Ind. Ed. 100, 105, 120, 125, 130, 139; 196 and 197 or Math 111; 200, 240, 250, 260, 341 or E.T. 102, 360, 405, 470, 540 or E.R.S. 550.

\*Note: If any area of instruction found in the major is selected for a minor, then the requirements in this area are dropped and a corresponding number of elective hours are to be added.

16-hour list (Minor): Drawing 110, 111; Ind. Ed. 100, 105, 139, 160, 240.

17-hour list (Minor in craftwork): Drawing 109; Ind. Ed. 160, 250, 260, 360; Art 256, 263, 366.

16-hour list (Minor in drawing): Drawing 109, 110, 111, 156, 210, 255, 311.

16-hour list (Minor in electronics): E.T. 101 or Ind. Ed. 240, E.T. 102, 231, 232.

17-18-hour list (Minor in metalwork): Ind. Ed. 120, 125, 130, 131 or 325, 139, 335, 336, 337.

16-hour list (Minor in woodwork): Ind. Ed. 100, 105, 200; and 8 hours selected from Ind. Ed. 119, 201, 210, 211, 301.

### **Journalism:**

27-hour list (Major): 101, 211, 212, 301, 321, 323, 330, 410, 490; 5 hours selected from 111, 307, 315, 331, 561.

18-hour list (Minor, dominant, or related subject): 211, 212, 321, 323, 490; 4 hours selected from 101, 111, 301, 330, 410.

### **Latin:**

40-hour list (Major): 101, 102, 201, 301, 321, 322, 441, 442; and sufficient hours of electives in the 300 series or above to bring the total to 40 hours.

30-hour list (Minor): 101, 102, 201, 301, 321, 322, and sufficient hours of electives in the 300 series or above to bring the total to 30 hours.

**Note 1:** Up to 16 hours of lower division credit may be waived for those who demonstrate proficiency in the foreign language by examination given at B.Y.U. The department chairman will attest such proficiency in a written statement to the Teacher Certification Office.

**Note 2:** All students who intend to qualify for a teaching certificate must take Language Education 377 in the appropriate language.

### **Library Science:**

16-hour list (Minor or dominant subject): 355, 363, 366, 370, 585; and 5 hours of electives in library science.

### **Mathematics:**

25-hour list (Major): 213, 301, 302, 371 or 372, Statistics 341; 9 hours selected from 300, 311, 312, 313, 334, 371, 372, 387, Statistics 521, 522.

18-hour list (Minor or dominant subject): 112, 213, 301, 302, Statistics 341.

16-hour list (Related subject): 112, 213, 301, 302.

### **Music Education:**

60-hour list (Composite music education major): 103, 191, 192, 193, 194, 202, 237, 291, 292, 363, 364, 367, 368, 370, 372, 374, 375, 378, 484, 485; 6 hours of ensemble; 12 hours of private instruction in the student's specialty; pass a piano proficiency requirement equivalent to 4 semesters of piano before student teaching.

**Note:** Please refer to Department of Music requirements in this catalog for recital and ensemble requirements.

21-hour list (Music education minor, instrumental music emphasis area): 101, 191, 193, 201, 202; 6 hours selected from 160p or 360p (on instrumental specialty), 368, 370, 372, 375; 4 hours of instrumental ensemble.

21-hour list (Vocal music emphasis area): 101, 191, 193, 201, 202, 374; 4 hours of group and/or private voice; 4 hours of vocal ensemble.

#### **Physical Education (Men):**

35-hour list (Major): 180, 181, 182, 190, 191, 231, 232, 233, 234, 235, 236, 290, 291, 330, 341, 344, 390, 413, 446, 464, 490, 491; 3 of the following 4 courses: 371, 372, 373, 374; and 4½ hours of electives.

17-hour list (Minor): 2 courses from 180, 181, 182; 4 hours from 231, 232, 233, 234, 235, 236; 4 hours from 371, 372, 373, 374; 330, 341, 446.

15-hour list (Related subject): 2 courses from 180, 181, 182; 4 hours from 231, 232, 233, 234, 235, 236; 2 hours from 371, 372, 373, 374; and 330, 341, 375, or 376.

#### **Physical Education (Women):**

35-hour list (Major): 180, 181, 182, 183, 187, 188, 190, 191, 241, 242, 244, 245, 290, 291, 330, 341, 344, 375 or 376, 390, 391, 413, 446, 464, 490, 491, 570 or 572, and 3 hours of electives.

16-hour list (Minor): 2 courses from 180, 181, 182, 183; 3 courses from 241, 242, 244, 245; and 187, 188, 330, 341, 375 or 376.

14-hour list (Related subject): 2 courses from 180, 181, 182, 183; 2 courses from 241, 242, 243, 244; and 187, 188, 330, 341, 375 or 376.

#### **Physical Education, Women (Dance Emphasis):**

41-42-hour list (Major): Physical Education 181, 182, 183, 187, 188, 190, 191, and any two of 241, 242, 244, 245, 280; any three of 281, 282, 283, 284, 285; 287, 288, 290, 291, 330, 341, 344; 380, 383, 387, 388, 390, 391, 413, 446, 464, 484, 485; 487 or 488; 490, 491.

#### **Physics:**

26-hour list (Major): 211, 212, 213, 214, 315, 316, 321, 322; and 3 or more hours selected from the upper division courses.

18-hour list (Minor or dominant subject): 211, 212, 213, 214, 300, 315 (or 303), and 3 or more hours selected from the upper division courses.

13-14 hour list (Related subject): 201, 202, 303; and 2 or more hours selected from 127, 128, 137, 177, 300, or other upper division courses.

#### **Political Science:**

30-hour list (Major): 110, 111, 112, or 115, 300; and 18 hours selected in consultation with the chairman of the Department of Political Science to include one course from 301, 303, 306; one course from 310, 320, 322; one course from 330, 532, 535; one course from 350, 352, 355, 557; one course from 370, 565, 571, 575; one course from 396, 397, 575, 595.

18-hour list (Minor or dominant subject): 110, 111, 112 or 115; and 9 hours selected in consultation with the chairman of the Department of Political Science.

12-hour list (Related subject): 110, 111, 112, or 115; and 3 hours selected in consultation with the chairman of the Department of Political Science.

#### **Psychology:**

27-hour list (Pre-professional major): 111\*, 321\*, 340 or 540\*, 360\*, 365\*, 370\*, 374, 378\*, 491; the remaining hours selected from 185, 320, 350, 445\*, 450, 460, 550\*, 585\*.

27-hour list (General culture major): 111, 185, 311, (or 360 and 365), 321, 350 or 357, 378, 450, 460, 491, 340 or 540; the remaining hours selected from 320, 330, 445, 580.

17-hour list (Minor or dominant subject): 111, 311, 321, 378, 450 or 540; at least 3 hours selected from 185, 320, 340 or 540, 350, 445, 450, 460, 550, 585.

13-hour list (Related subject): 111, 311, 321; at least 5 hours from 185, 320, 340 or 540, 350, 374, 378, 445, 450, 460, 550, 585.

\*Required on the undergraduate level for the school psychologist program.

**Note:** To complete professional education requirements, the students should complete E.R.S. 304 and Psychology 321 rather than E.R.S. 403, and two hours of electives in psychology to compensate for Psychology 321 which will be counted in education.

#### **Recreation:**

16-hour list (Minor or dominant subject): 301, 337, 387, 388, 505; Physical Education 180 and 181 or 182 and 4 hours of electives from the approved list under Department of Recreation.

12-hour list (Related subject): 301, 337, 387, 388, 505; Physical Education 180 and 181 or 182.

**Note:** A student may substitute for one of the above courses with the consent of the department chairman and the Teacher Certification Office. Elementary education majors should refer to the Department of Recreation section of the catalog for the recreation minor.

#### **Russian:**

40-hour list (Major): 101, 102, 201, 301, 321, 322, 441, 442; and sufficient hours of electives in the 300 series or above to bring the total to 40 hours.

30-hour list (Minor): 101, 102, 201, 301, 321, 322, and sufficient hours of electives in the 300 series or above to bring the total to 30 hours.

**Note 1:** Up to 16 hours of lower division credit may be waived for those who demonstrate proficiency in the foreign language by examination given at B.Y.U. The department chairman will attest such proficiency in a written statement to the Teacher Certification Office.

**Note 2:** All students who intend to qualify for a teaching certificate must take Language Education 377 in the appropriate language.

#### **Sociology:**

30-hour list (Major): 111, 112, 125, 320, 397, 404, 405, 491, 512; and sufficient hours selected from 316, 348, 350, 357, 380, 383, 389, 403, 410, 420, 423, 426, 446, 449, 470, 516, 543, 552, 555, 560, 570, and 591 to bring the total to 30 hours.

18-hour list (Minor or dominant subject): 111, 112, 125, 380; and sufficient hours selected from 316, 348, 350, 357, 370, 383, 389, 403, 410, 420, 423, 426, 446, 449, 470, 512, 516, 552, 555, 560, 570, and 591 to bring the total to 18 hours.

12-hour list (Related subject): 111 and 112; and sufficient hours selected from 316, 348, 350, 357, 370, 380, 383, 389, 403, 410, 420, 423, 426, 446, 449, 470, 512, 516, 552, 555, 560, 570, and 591 to bring the total to 12 hours.

#### **Spanish:**

40-hour list (Major): 101, 102, 201, 301, 321, 322, 441, 442; and sufficient hours of electives in the 300 series or above to bring the total to 40 hours.

30-hour list (Minor): 101, 102, 201, 301, 321, 322, and sufficient hours of electives in the 300 series or above to bring the total to 30 hours.

**Note 1:** Up to 16 hours of lower division credit may be waived for those who demonstrate proficiency in the foreign language by examination given at B.Y.U. The department chairman will attest such proficiency in a written statement to the Teacher Certification Office.

**Note 2:** All students who intend to qualify for a teaching certificate must take Language Education 377 in the appropriate language.

#### **Zoology (Biology majors for secondary teachers):**

**Note:** The preparation and certification of teachers in biology in secondary

schools is a cooperative program between the departments dealing with the biological sciences and the College of Education. Prospective biology teachers must complete either a botany major and a zoology minor, or a zoology major and a botany minor.

32-hour list (Zoology major): Zoology 105, 176 or 376, 212, 213 or 363, 230, 261, 372, 451; and sufficient hours selected from 343 or 345, and 346 or 347 to bring the total to 32 hours or more.

16-hour list (Botany minor): Botany 101, 105, 110, 210; 6 hours selected from 205, 321, 376, 440, 450, 460.

**Note:** Bacteriology 121 and 122 are also required. Required supporting courses for biology teachers: Mathematics 101, 111; one year of chemistry beyond Chemistry 100, preferably Chemistry 111, 112.

Recommended supporting courses: Agronomy 141; Bacteriology 501; Botany 335, 455, 460; Geology 111, 112; organic chemistry.

19-hour list (Zoology minor): 105, 230, 261, 343 or 345; 346, 347; and 372.

### THE LABORATORY SCHOOL

Director: Edwin A. Read

Assistant Directors: John K. Crnkovic, instruction;

W. Dwayne Belt, operations

The Laboratory School (kindergarten through twelfth grade) is maintained by the College of Education to assist in the preparation of teachers and in the improvement of educational programs. Students may secure valuable experiences there as part of their preparation for teaching. The Laboratory School is also intended to furnish a setting for research in child development, in learning, in social processes, and in the planning and conducting of educational programs. Use of these facilities is under the supervision of the director of the Laboratory School, an assistant director of instruction, and an assistant director of operations. Faculty members and students desiring to visit the school for any purpose should make arrangements through the office of the assistant director of instruction.

In keeping with the laboratory functions of the school, pupils are frequently under observation and study, and classes are subject to various kinds of experimental treatment for the purpose of improving instruction. Regardless of these functions, however, the instruction is kept at a high level of quality, since one of the principal purposes of the school is to demonstrate superior educational practices for the benefit of teachers-in-training and teachers-in-service.

Moral and religious education is a constant part of the instruction in this school. Pupils are admitted under the assumption that they will adhere to L.D.S. standards of personal conduct, dress, and morality. Observance of these standards is a requirement for continued enrollment in the Laboratory School. Pupils are also required to observe the Utah compulsory school attendance law.

Enrollment in each grade of the Laboratory School is limited to the number of pupils for whom adequate educational services can be provided. Pupils are accepted on the basis of established criteria which are important in carrying on the unique functions of the school. Applications for admission should be filed with the assistant director of operations between January 1 and June 1 preceding enrollment in September. Forms for this purpose are available in his office, 212 Education Building, Brigham Young University, Provo, Utah.

Pupils admitted to the Laboratory School may continue their education through the graduate program of the University providing established academic and behavioral standards are maintained. They have many of the advantages of the University plant, such as use of libraries, gymnasiums, laboratories, shops, athletic fields, and auditoriums.

## Elementary Laboratory School

The elementary section of the Laboratory School covers the range from the kindergarten through the sixth grade.

A staff of well-qualified instructors, together with the facilities offered by the University and the assistance given by special supervisors, provide a wide range of experiences for the children. Much attention is given to individual needs and interests and to the development of special abilities of pupils. The elementary program includes instruction in art, crafts, and vocal and instrumental music.

The school serves as a laboratory for educational research and experimentation, and is a center for the preparation of teachers in elementary education.

## Secondary Laboratory School

Pupils completing the first six grades are regularly transferred to the junior high school. Here departmentalization begins, permitting variations in courses and a wide range of contact with expert instructors. Broad exploratory experiences are provided.

Pupils completing the three years of work prescribed for the junior high school are admitted to the senior high school. Pupils graduating from the senior high school are expected to have completed eighteen units of study in three years. Equal credit is given in all subjects for equal amounts of time spent in the classroom. One unit of credit is granted for each class which meets five days per week for thirty-six weeks. All required classes must be included in the program of each pupil who qualifies for graduation.

A rich program of athletic and social activities is provided for secondary school pupils under the direction of the faculty and the student body organizations. Pupils participate in interscholastic athletics, speech, art, music, and commercial competition. High school students also have the advantage of participation in selected activities sponsored by the University.

Brigham Young University High School is a member of the Utah High School Activities Association, meets all requirements of the Utah State Board of Education, and is accredited by the Northwest Association of Secondary and Higher Schools.

### Program of Studies

**Junior High School.** The junior high school organization is designed to assist children in the transition from the elementary to the secondary school. The academic curriculum is arranged to fit the particular needs of this age group, and to prepare them for wise selection of course offerings in the senior high school. Seventh and eighth grade students plan and conduct their own social and recreational activities under the direction of faculty advisers. Ninth graders are considered to be members of the senior high school student body in the Laboratory School.

Students showing high potential in achievement are permitted to take accelerated work in mathematics and language arts in anticipation of enrollment in advanced classes during the last year of high school.

#### 7th Grade subjects:

Required: English, social studies, mathematics, general science, reading, speech, physical education, and general music.

Electives: Chorus, band, and Spanish.

#### 8th Grade subjects:

Required: English, social studies, mathematics, general science, reading, art, physical education, vocal music, and industrial arts or homemaking.

Electives: Chorus, band, algebra, and Spanish.

#### 9th Grade subjects:

Required: English, social studies, science, mathematics, physical education, and religion.

Electives: algebra, typing, chorus, band, art, industrial arts or homemaking, speech, French, German, and Spanish.

**Senior High School.** Students desiring to graduate from B.Y.U. High School and to qualify for college entrance at the same time must complete the following requirements. (A unit of credit is given for any subject that is taken five times a week for thirty-six weeks.)

1. A total of eighteen units is required in grades 10, 11, and 12.
2. One unit of physical education. Students who have some physical disability may be excused from this requirement upon presentation of a statement from the family physician attesting to this fact.
3. One-half unit of health.
4. One-half unit of senior guidance.
5. One unit of mathematics selected from algebra, geometry, or general mathematics.
6. Three units of English.
7. Two units of social studies: American history and government, and either problems of democracy, development of civilization, or current history.
8. One unit of science.
9. While at Brigham Young University High School, the prescribed course in religious education must be followed satisfactorily by all students. One religion class each year is required until graduation from the seminary program. (three units)
10. A broad selection of courses in the fine and practical arts is available to all students.

Senior students who have demonstrated outstanding academic ability may be permitted to enroll in advanced classes at the high school and/or selected Home Study courses offered by the University Extension Services. Other students may enroll for Home Study to resolve programming difficulties.

### SENIOR HIGH SCHOOL COURSES

Subject	Days		Year Taken	Credit
<b>Practical Arts</b>				
Industrial Arts I and II	5	Elective	9-12	1 unit
Homemaking I	5	Elective	9-12	1 unit
Home Living	5	Elective	10-12	1 unit
<b>Business</b>				
Shorthand, Beginning	5	Elective	11-12	1 unit
Typing I and II	5	Elective	9-12	1 unit
Bookkeeping	5	Elective	10-12	1 unit
Office Practice	5	Elective	11-12	1 unit
<b>Language Arts</b>				
Composition, Grammar, and American Literature	5	Required	10	1 unit
Composition, Grammar, and English Literature	5	Required	11	1 unit
Composition, Grammar, and World Literature	5	Required	12	1 unit
Publications	5	Elective	10-12	1 unit
<b>Language</b>				
French I and II	5	Elective	9-12	1 unit
German I and II	5	Elective	9-12	1 unit
Spanish I and II	5	Elective	9-12	1 unit

**Speech**

Speech I	5	Elective	9-12	1 unit
Forensics	5	Elective	10-12	1 unit
Interpretive Speech	5	Elective	10-12	1 unit

**Mathematics**

Functional Math	5	Elective	9	1 unit
Algebra I and II	5	Elective	9-12	1 unit
Geometry	5	Elective	10-12	1 unit
Trig and College Algebra	5	Elective	11-12	1 unit
Calculus	5	Elective	12	1 unit

**Science\***

General Science	5	Required	10	1 unit
Biology	5	Elective	11-12	1 unit
Chemistry	5	Elective	11-12	1 unit
Physics	5	Elective	12	1 unit

**Health, Physical Education, and Personal Development**

Physical Ed. I (boys and girls)	5	Required	10 & 12	1 unit
Health	2½	Required	10	½ unit
Senior Guidance	2½	Required	12	½ unit
Athletics	5	Elective	10-12	
Drill team (girls)	5	Elective	10-12	

**Religious Education**

Book of Mormon	5	Required	9	1 unit
New Testament	5	Required	10	1 unit
Church History	5	Required	11	1 unit
Old Testament	5	Elective	12	1 unit

**Fine Arts**

Art I and II	5	Elective	9-12	1 unit
Chorus	5	Elective	10-12	1 unit
Band	5	Elective	10-12	1 unit

**Social Science\*\***

American History & Gov't.	5	Required	11	1 unit
World History	5	Elective	10	1 unit
Problems of Democracy	5	Elective	12	1 unit
Current History	5	Elective	12	1 unit

\*These subjects are only partially elective as one of this group must be taken.

\*\*One of these courses is required in addition to American history and government.

## College of Family Living

Virginia F. Cutler, Dean (1206 SFLC)

The following departments are in the College of Family Living:

Clothing and Textiles  
Food and Nutrition  
Homemaking Education  
Housing and Home Management  
Human Development and Family Relationships

**Objectives.** The program of the College of Family Living is designed to contribute to the accomplishment of the objectives of Brigham Young University, and in so doing to provide educational and research experiences which will help young men and women

- (1) to understand themselves and others,
- (2) to develop their capabilities,
- (3) to establish attractive and happy homes in which all facets of family living are integrated for the enrichment and strengthening of family life,
- (4) to accept responsibilities as family members in church and community activities,
- (5) to earn a living and to make contributions in professions related to homes and families.

These aims are based upon the conviction that abundant living evolves primarily from the happy family. Such objectives have their roots deep within the culture of the Latter-day Saints. Family life is the matrix of spiritual development, the foundation of society, and the basic unit of the Kingdom of God.

A portion of the curriculum is adapted to the needs of men and women who do not carry major work in a department of the College of Family Living. Every student in the University is urged to elect at least one such course so he may become a better family member.

**Scope.** The experiences of family living involve the discoveries of science, the insights of the humanities and the fine arts, the inspiration of religion, and the enjoyment of recreation.

Courses offered in other colleges are used liberally to integrate and organize educational experiences which will increase students' capacities to participate in effective family and community living.

Course offerings in this college are designed to prepare both men and women students for effective family living, and for a profession. Educational experiences are directed toward helping students gain understanding and skills regarding management; the wise planning, purchasing, and preparation of food for individuals and groups; care and selection of clothes; use of equipment; house planning for efficient and comfortable living; and mature, creative relationships in personal family and community life.

The College of Family Living, through the Department of Homemaking Education, shares responsibility with University housing in the education of women students for living in Heritage Halls. (See the Student Housing section of this catalog.)

**College of Family Living Requirements.** All students registered in the college should elect Homemaking Education 91 (Orientation to Family Living) during the first semester of the freshman year.

Students registered in the college shall elect three specified groups of courses: (A—general education; B—courses in the college; and C—courses in the major department.)

A. General education: Courses selected to meet University requirements should also provide background for work in the college. Refer to major department for suggested courses to strengthen major.

B. Courses in the college: A total of 12 semester hours is required from the three departments outside of the major and a minimum of three hours in each department. (Men see department chairman for alternate program.)

C. Courses in the major department: (See departmental requirements.)

**Affiliation with the Merrill-Palmer Institute.** The College of Family Living has a cooperative arrangement with the Merrill-Palmer Institute of Human Development and Family Life in Detroit, Michigan. The college sends several students to the institute each year. Seniors or second semester juniors are selected for this honor on the basis of scholarship, worthy representation of the Church and Brigham Young University, and as potential professional workers in the field. Credits earned at the institute are accepted and credited to the major field at Brigham Young University.

Classes and discussion groups are small. Observation and experience are a vital part of the program. Among the special fields represented at Merrill-Palmer

are adult education, child development, family life education, gerontology, home economics, marriage counseling, nursery education, nutrition, psychology, religion, and sociology. To spend a semester at the Merrill-Palmer Institute is a unique and rewarding experience.

**Graduate Study.** A student who has completed all requirements for the bachelor's degree is classified as a graduate student. The work of all graduate students is under the jurisdiction of the dean of the Graduate School. The College of Family Living provides opportunities for work toward the master's degree in human development and family relationships, and in food and nutrition. The Doctor of Philosophy degree may be obtained in the field of human development and family relationships. Because of attractive opportunities and a serious need for the contributions of highly trained professional persons, outstanding students are encouraged to pursue graduate studies.

### Professional and Honorary Clubs

The **Home Economics Club** is affiliated with the Utah and the American Home Economics Associations. Membership is extended to all students interested in home economics.

The **H.D.F.R. Club** is primarily for those students majoring or minoring in human development and family relationships. However, the club also offers membership to students who have strong interests in the areas of family relations and the development of family members at various age levels. A program of social and professional activities is promoted throughout the year.

**Omicron Nu** is a national home economics honor society whose object is to recognize superior scholarship and to promote leadership and research in the field of home economics.

Juniors and seniors are eligible for membership if they are fulfilling the requirements for the bachelor's degree with a major within the College of Family Living and have maintained superior scholarship.

Graduate students meeting all the qualifications are also eligible for election to membership.

### Scholarships and Awards

#### Sophomores.

The **Home Economics Club Award** of approximately \$115.00 as partial payment of one year's tuition is available each year to a woman student in the college who is an active member of the club and who has been of service to it for at least part of two academic years. Application must be made by March 15th to the College Scholarships and Awards Committee on forms available in the office of the dean of the college. Election will be made by club members by ballot. Applicants must have a grade-point average of 2.65 or above with no "D" on the record; must have a total credit at the time of application of no more than 77 credit hours and must have earned the following amounts of credit: physical education, 2 hours; English, 6 hours (4 if this fulfills the freshman English requirement); chemistry, 6 hours; psychology, 3 hours; bacteriology, 3 hours; food and nutrition, 3 hours; and Health 130, 2 hours.

#### Juniors.

**Elsie Maughan Belliston Award.** Books and/or magazines of a professional or scientific nature of the student's choosing in the amount of \$25.00 will be awarded to a junior who has maintained a grade-point average of 3.0 or above, shows need, and possesses a high ethical character.

**Elizabeth Cannon Sauls Scholarship.** The sum of \$25.00 will be awarded to a deserving junior in the College of Family Living. The award is based on good grade-point average, need, good character, and professional potential.

**Seniors.**

The Leah D. Widtsoe silver loving bowl is awarded annually to a senior of sterling character who has made marked progress during her years of study, and who at the same time has rendered service to her classmates, her college, and the University.

The Hazel Noble medal is awarded annually to an outstanding graduating senior with fine womanly qualities and commendable professional attitude who applies to her daily living the knowledge acquired in her studies in the college.

The Homemaking Education Senior Achievement Award is given to a senior in the Department of Homemaking Education who is selected on the basis of her professional interest and growth, high scholastic standing, and her contribution to her chosen field.

The H.D.F.R. Outstanding Senior Achievement Award is given annually to two seniors in the Department of Human Development and Family Relationships selected on the basis of their high scholastic standing, marked progress in their field of study, and professional promise.

**Graduate Students.**

The Walter Ellis Trunnel Award is given to the graduate student whose research in connection with thesis or dissertation is judged to reflect the most original thinking and significant contribution to the improvement of family life and service to the Church.

## College of Fine Arts

Conan E. Mathews, Dean (312 E)

The following departments are in the College of Fine Arts:

Art  
Dramatic Arts  
Music  
Speech

The policy of the University has always provided for a liberal patronage of the fine arts. The organization of the College of Fine Arts in 1925 was the result of desire to offer students greater opportunities for better coordinated academic and professional growth.

With exceptionally well-prepared faculties, who have received the benefits of extended study in recognized schools and art centers, and adequate physical equipment in all departments, the College of Fine Arts has become favorably known for the artistic and academic work done under its direction.

Any course offered in this college that leads to the baccalaureate degree is the cultural equivalent of other college courses offered in the University, differing from them mainly in respect to the emphasis placed on the study of the fine arts.

Majors are selected from the work offered in the departments; minors may be selected from them or from other departments in the University which offer allied work.

### Department of Art

The preparation of creative leaders in the various fields of the plastic and graphic arts and the education of appreciative audiences for these arts constitute the two-fold purpose of the Brigham Young University Art Department.

Optional programs leading to a major in art are planned for those who are preparing for careers in art education, commercial art, interior design, painting, printmaking, sculpture, and ceramics, or for those who are pursuing a general course in art. All options lead to the Bachelor of Arts degree.

Master of Arts degrees are offered in the fields of painting and sculpture and in design, which may include ceramics, crafts, interior design, print-making, and commercial art.

A collection of more than seven thousand original works of art, by both American and European artists, is owned by the University. Regularly changing exhibitions of work by contemporary artists also contribute to general appreciation and to the instructional program. Exhibitions of students' work are held regularly for analysis and criticism, and for furthering professional growth. The Department of Art sponsors a studio guild, an organization by and for the students, through which special lectures, demonstrations, and trips to galleries contribute to growth and interest.

### Department of Music

The main objectives of the Department of Music are (1) to help each student attain through music the skills and proficiencies of an artist while he is gaining a broad general education; (2) to develop talent to the highest degree possible; (3) to train music teachers for a noble profession; and (4) through association with distinguished artists and teachers, to help all B.Y.U. students acquire discriminating taste and sound critical judgment.

The bachelor's degree is available in music theory, applied music, and music education. The master's and doctor's degrees may be taken in musicology, music theory, and music education.

Students who desire to become composers, arrangers, or music copyists, or who wish to teach theory of music, should pursue a major in music theory.

Every music major studies a certain amount of applied music in order to develop proficiency on his major instrument or in voice. Students who wish to become skilled performers in order to qualify themselves to assume positions in the concert or professional world should major in applied music.

Prospective school teachers have the opportunity to major in vocal or instrumental music. Each program is designed to emphasize the essential aspects of preparation for teaching in public schools. The master's degree program in elementary or secondary school music is designed to prepare teachers, supervisors, and music consultants who can help classroom teachers teach music effectively.

A cultural atmosphere seldom equaled is provided through concerts and recitals, including visiting groups and artists. The Department of Music sponsors more than 150 concerts and recitals each year. This does not include the lyceum service provided by studentbody activities and by lyceum committees.

There is a musical organization for every student at B.Y.U. who is interested in singing, or playing a musical instrument.

### Departments of Dramatic Arts and Speech

These departments are combined, and cooperate in order to develop a broad but intensive program leading to the bachelor's and master's degrees to fit the needs of the general college student who wishes to develop his own ability of expression and for the student seeking professional training in oral communication arts. Divisions for specialization are theatre and dramatic arts, public address, speech and hearing rehabilitation, radio and television, and speech for teachers in elementary and secondary schools.

Twelve major dramatic productions and many one-act and experimental plays constitute the annual offerings. Recently the departments were highly honored in being selected by the U.S.O. to play at Far Eastern military bases including Japan, Okinawa, Korea, the Philippines, Guam, and Hawaii.

In addition to providing service courses in public speaking, discussion, and debate for the general student, the public address area provides training to support the pre-law, business, and teaching professions. Inter-collegiate activities include participation in approximately thirty debate trips to many parts of the nation. In February of 1960 a B.Y.U. team won first place at the Seventh Annual Harvard Invitational Intercollegiate Debate Tournament, and in January of 1961 a B.Y.U. team won the Western Division trophy for debate.

In meeting the challenge of the increasingly important role of radio and television in society, the departments have established a fine radio and television training laboratory. Professional training includes operation of radio station KBYU and television studios.

An ever-increasing number of speech majors are securing teaching certificates both for elementary and for secondary schools and in areas where there is a demand for trained speech and hearing therapists.

## **General College**

Wayne B. Hales, Dean (A-261 ASB)

General College has been added to the academic structure of Brigham Young University to meet more adequately the objectives and changing educational demands of the University. The college is designed to help students develop responsible citizenship in the Church and in the state, to acquaint them with their cultural heritage, and to lay the foundations for useful and productive lives in a democratic society. To achieve these objectives, General College has been organized to take care of the educational needs of students through the following:

The Department of Industrial Education  
The Technical and Semi-Professional Institute  
The Skills Improvement Service  
The Division of Provisional Registration

### **DEPARTMENT OF INDUSTRIAL EDUCATION**

Students interested in industrial education may major in industrial arts education (teacher training), or in one of the industrial technology fields and receive a four-year bachelor's degree. The major in industrial arts education will also receive a secondary teaching certificate. A wide variety of courses is offered in mechanical drawing, electrical work, metal work, woodwork, and other industrial subjects. A graduate program is also offered leading to a master's degree in industrial education. For further information regarding this program see the Department of Industrial Education section of this catalog.

### **TECHNICAL AND SEMI-PROFESSIONAL INSTITUTE**

Students desiring to obtain technical training in special fields of agricultural technology, business technology, commercial art, computer programming technology, engineering technology, home technology, industrial technology, or geological technology may register for one of the two-year programs offered in the Technical and Semi-Professional Institute. Upon completion of one of these prescribed programs the student will receive a two-year technical certificate indicating his proficiency in that field. For further information regarding this program see the Technical and Semi-Professional Institute section of this catalog.

### **SKILLS IMPROVEMENT SERVICE**

Students admitted to the University on academic warning come under the jurisdiction of the Skills Improvement Service. The purpose of this program is to help these students develop abilities and aptitudes which will allow them to compete effectively with other students at Brigham Young University. They will be taught to read, write, speak, think, and study more effectively. For further information regarding this program see the Skills Improvement Service section of this catalog.

### **DIVISION OF PROVISIONAL REGISTRATION**

Each year a large number of students come to the University unsettled in their minds on a major field. These students will register in the Division of Provisional Registration. In this division the student is assigned a registration adviser who serves as his adviser on academic problems during the one or two years he is in provisional registration. Therein the students will pursue outlined courses in general education. At the end of one or two years of study they must select a major, transfer to the appropriate college, and continue studies toward a baccalaureate degree.

Ten curricula are provided for a student who may have an interest in a given field. These curricula are:

### Biological Science, Pre-Medical, Pre-Dental, and Pre-Forestry

A student having an interest in the fields of botany, bacteriology, and zoology or in the pre-dental, pre-medical, and pre-forestry areas should register for the following courses. He may transfer to the major of his choice at any time during his freshman or sophomore year and continue his work toward a baccalaureate or other professional degree.

The pre-medical or pre-dental student should contact the chairman of the pre-medical-dental committee by the end of the freshman year to ensure completion of all requirements for the school of his choice.

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Chemistry 111, 112 .....	4	3
Mathematics 101, 111			Physics 201, 202 .....	4	4
(or 111, 112) .....	3	5	Botany 201 .....	1	
Botany 101 or			Botany 376 (and 378)		
Zoology 105 .....	3		or Zoology 376 .....	4	
Botany 110 or			Bacteriology 321		
Zoology 212 .....		3-4	and 322 .....		4
Health 130 .....	2		Electives .....	1	3
Social science or					
humanities .....	3		Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$
History 170 .....		3			
Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$ -17 $\frac{1}{2}$			

### Business

The following is a suggested two-year program for students having a general interest in business but undecided about the particular area in which to major. With the exceptions of English composition and courses with indicated prerequisites, the freshman and sophomore courses may be taken interchangeably. Students may transfer into the College of Business at any time.

Freshman Year			Sophomore Year		
	F	S		F	S
English 111, 112 .....	3	3	Religion .....	2	2
Scripture 121, 122 .....	2	2	History 170 .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Health 130 .....	2		Biological science		
Economics 111, 112 .....	3	3	group* .....		3
Physical science group*	3		Statistics 221 .....	3	
English (literature) .....		3	Business Management		
Math 101 or			347 .....		3
Accounting 131** .....		3-2	Accounting 201, 202 or		
Electives .....	3	2-3	211, 212 .....	3	3
Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$	Economics 274		
			(humanities) .....		3
			Business Management		
			205 .....		2
			Physical science group*	3	
			Electives .....	2	
			Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$

\*Any of the courses listed under the proper headings for general education requirements will be appropriate.

\*\*Students who have had two years of high school algebra and who score high on the placement test may omit these courses.

### Education

A student having an interest in elementary education should register for these courses. At the end of his freshman or sophomore year he may transfer to the College of Education without loss of credit and continue his studies toward a Bachelor of Science or Arts Degree.

A student having an interest in secondary education should register for the appropriate courses in other areas of provisional registration. For example, a person wishing to teach biological science in the secondary schools should register in courses under biological science, pre-medical, pre-dental, and pre-forestry. Or, if a person wishes to teach industrial arts, he should register in the Department of Industrial Education. At the end of his sophomore year he may transfer to the appropriate college or to the College of Education without loss of credit and continue his studies toward a Bachelor of Science or Arts degree.

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	Music 102, 237 .....	2	2
Physical education* ....	$\frac{1}{2}$	$\frac{1}{2}$	Economics 101 .....	3	
Geology 101 .....		2	Psychology 111 .....	3	
Geology 102 .....		1	Chemistry 100 .....	2	
Physics 100 .....	3		Physical education* ....	$\frac{1}{2}$	$\frac{1}{2}$
Art 110, 226 .....	2	2	Botany 101 or		
History 170 .....	3		Zoology 105 .....		3
Health 130 .....	2		Geography 120 .....	3	
Dramatic Arts 121 .....		3	English or		
Bacteriology 121 .....		3	American literature ..		3
			History 360 .....		3
Total Hours .....	15 $\frac{1}{2}$	16 $\frac{1}{2}$	Electives .....	2	3
			Total hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$

\*Any 100 series physical education course. Physical Education 181 and 182 are recommended.

### Family Living

Students in General College may take any course from the 100 and 200 series in the various departmental offerings for which there is no prerequisite or for which they have already taken the prerequisite. This program is designed to help students prepare for marriage and/or to count toward a baccalaureate degree in the major of their choice. It is not designed as a vocational program.

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	H.D.F.R. 210 .....		3
Chemistry 101 .....	4		Psychology 111 .....	3	
Chemistry 102 .....		4	English literature .....	2	
Art 101 or 110 .....	2		Nursing 288 .....	2	
Homemaking Ed. 91 ....		0	Health 130 .....	2	
Clothing and			Zoology 105 .....	3	
Textiles 110 .....	2		Food and Nutrition 110		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	or elective .....	2	
Physics 100 .....		3	Housing and Home		
Bacteriology 121 .....		3	Mgt. 220 .....		2
Electives .....	3	2	Food and Nutrition 255		3
Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$	Clothing and		
			Textiles 165 .....		4
			Clothing and		
			Textiles 260 .....		3
			Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
			Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$

## Fine Arts

The following is a suggested sequence of courses for students having interests in the field of art, music, speech, and dramatic arts. At the conclusion of the freshman or the sophomore year, the student should transfer to the College of Fine Arts and continue his work toward a baccalaureate degree.

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	Foreign language,		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	1st year .....	4	4
Health 130 .....	2		Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical science* .....	3	3	Psychology 111 or		
Fine arts electives** ....	7	8	Sociology 111 .....	3	
			History 170 .....		3
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$	Fine arts electives** ....	8	8
			Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$

\*Any of the courses listed under physical science of the general education requirements will be accepted.

\*\*Art 121, 122, and electives from 227, 233, 239, 250, 256, 263; Music 101, 102, 105 (or private lessons), 170 (or private lessons or other choral group); Speech 101, 121, and 241. It is strongly recommended that a student decide whether or not to major in art or music not later than the end of his first year.

## Humanities

It is anticipated that the student who selects the program suggested below will have a general interest in the field of humanities, but will be undecided about a subject in which to major. Completion of this two-year program will fill most of the general education group requirements, will provide training in a foreign language in anticipation of the B.A. degree, and will offer a generous sampling of humanities courses to assist the student in selecting a major. See the College of Humanities and Social Sciences section of this catalog for the new humanities major program.

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Foreign language .....	4	4
Humanities 101 .....	3		Biological science		
Foreign language .....	4	4	electives** .....	3	3
History 170* .....		3	English 250 .....	3	
Health 130 .....		2	Social science		
Physical science			electives** .....	2-3	3
electives** .....	3	3	Humanities electives** ..	2-3	5
Total Hours .....	15 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	16 $\frac{1}{2}$ -18 $\frac{1}{2}$	17 $\frac{1}{2}$

\*Students who anticipate majoring in history, journalism, or political science, should take History 120 or Political Science 110 and History 121 instead of History 170.

\*\*Students should be sure that the courses selected in physical science, biological science, social science, and humanities fill general education credit in these areas.

## Nursing

Any student interested in nursing and trying to determine her major should confer with the dean of the College of Nursing or an adviser in the College of Nursing regarding the program and opportunities. Only the first semester of courses is offered in General College for those interested in nursing.

## Freshman Year

	F
Scripture 121 .....	2
English 111 .....	3
Physical education .....	$\frac{1}{2}$
Chemistry 101 .....	4-5
Psychology 111 .....	3
Zoology 105 .....	4
Total Hours .....	$16\frac{1}{2}$ -17 $\frac{1}{2}$

## Physical Education

The following is a suggested sequence of courses for students having interests in the fields of recreation, physical and health education, athletics, and youth leadership. When a decision is reached to major in one of these areas, the student should transfer immediately to the College of Physical Education and continue his work toward a baccalaureate degree. He should consult the sections of the catalog dealing with those departments for details for majors in health, physical education, recreation, and youth leadership.

## Men

## Freshman Year

	F	S
Scripture 121, 122 .....	2	2
English 111, 112 .....	3	3
Physical Education 231, 232 .....	1	1
Physical science* .....	3	
Health 130 .....		2
History 170 .....		3
Humanities .....	2	3
Bacteriology, botany, or zoology .....	3	
Minor subject area .....	2	2
Physical Education 180, 181 .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education 190, 191 .....	0	0
Elective .....		1
Total Hours .....	$16\frac{1}{2}$	$17\frac{1}{2}$

## Sophomore Year

	F	S
Religion .....	2	2
Humanities .....	2	2
Physical Education 233, 234, 235 .....	1	2
Zoology 261 .....		5
Sociology 111 .....		3
Psychology 111 .....	3	
Physical science* .....	3	
Instruction 301 .....		1
Health 121 .....	2	
Minor subject area .....	2	2
Physical Education 182..	$\frac{1}{2}$	
Physical Education 290, 291 .....	0	0
Elective .....	2	
Total Hours .....	$17\frac{1}{2}$	17

\*Any of the courses listed under physical science of the general education requirements will be approved.

## Women

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	Physical Education		
Physical Education			224, 245 .....	2	2
241, 242 .....	2	2	Physical Education		
Physical Education			181, 182, 183 .....	1	$\frac{1}{2}$
390, 391 .....	0	0	Physical Education		
Physical Education			180, 160 .....	$\frac{1}{2}$	$\frac{1}{2}$
187, 188, 189 .....	1	$\frac{1}{2}$	Physical Education		
Physical sciences* .....	3	3	390, 391 .....	0	0
History 170 .....	3		Zoology 105, 261		
Health 130 .....		2	Bacteriology 121 or		
Humanities .....	2	3	Botany 101 .....	3	5
Elective .....		2	Psychology 111 .....	3	
			Humanities .....		3
Total Hours .....	16	17 $\frac{1}{2}$	Minor subject area .....	2	
			Health Education 362 ....		2
			English literature .....	3	
			Physical education		
			electives .....	1	2
			Total Hours .....	17 $\frac{1}{2}$	17

\*Any of the courses listed under physical science of the general education requirements will be approved.

## Physical Science

The following course of study is recommended for one or two years. At the end of either, the student may choose a major, transfer into the College of Physical and Engineering Sciences, and pursue his education to the completion of a Bachelor of Science degree in chemistry, geology, mathematics, or physics. To avoid loss of time, this transfer should be made as early as possible. Students interested in engineering but who have not chosen a specific field, should enroll directly in the pre-engineering curriculum outlined under the College of Physical and Engineering Sciences.

Freshman Year*			Sophomore Year		
	F	S		F	S
Mathematics 111, 112**	5	5	Mathematics 213, 334 ..	5	3
Chemistry 111, 112 .....	4	3	Physics 211, 213 .....	4	4
English 111, 112 .....	3	3	Physics 212, 214 .....	1	1
Scripture 121, 122 .....	2	2	Religion .....	2	2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Health 130 .....		2	History 170 .....	3	
Electives .....	3	3	Electives (biology		
			and/or humanities) ..	2	7
Total Hours .....	17 $\frac{1}{2}$	18 $\frac{1}{2}$	Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$

\*Those who may later choose an engineering curriculum should take the freshman year as suggested, substituting Chemistry 105 and 106 for Chemistry 111 and 112, and choosing as electives C.E. 101, 102, and M.E. 100.

\*\*All entering freshmen intending to take mathematics must take the mathematics placement test before or at the time of registration.

## Social Science

It is anticipated that the student selecting the program suggested below will have a general interest in the social sciences, but will be undecided about a sub-

ject in which to major. Completion of this two-year program will fill most of the general education group requirements and should permit a generous enough sampling of social science courses to assist in selecting a major.

Freshman Year			Sophomore Year		
	F	S		F	S
Scripture 121, 122 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Economics 101 or 111 ..	3	
Health 130 .....	2		Political science .....	3	
Sociology 111 or 112 ....	3		Geography 101 or 120 ..		3
History 170* .....	3		Anthropology 101 .....		3
Psychology 111 .....		3	English literature .....	2	2
Electives in			Electives in		
physical science** ....	3	3	foreign language		
Elective in			or humanities** .....	4	4
biological science** ..		2-3	Elective in		
Elective in			biological science** ..	3	
humanities** .....		2-3	Elective in		
			social sciences .....		3
Total Hours .....	16 $\frac{1}{2}$	15 $\frac{1}{2}$ -17 $\frac{1}{2}$	Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$

\*Students who anticipate majoring in economics, history, journalism, or political science should take History 120 or Political Science 110 and History 121, instead of History 170.

\*\*Students should be sure that the courses selected in physical science, biological science, social science, and humanities fill general education credit in these areas.

If a student completes one of these curricula, he may transfer into one of the other colleges of the University with a minimum of lost time, credit, or standing, and will advance as a junior in the college of his choice without professional handicap.

The same entrance requirements as have been set up for the rest of the University are required for Provisional Registration.

## College of Humanities and Social Sciences

Reed H. Bradford, Acting Dean (375 Maeser)

The following departments are in the College of Humanities and Social Sciences:

Archaeology  
Economics  
English  
Geography  
History  
Journalism  
Languages  
Political Science  
Psychology  
Sociology and Anthropology

The most fascinating study has always been man—what he has done, what he has thought, what he has said and how he has reacted to problems confronting him.

The humanities seek to discover, preserve, and disseminate the best of man's thoughts and creations. The social sciences study the activities and relationships of man: his nature, his power to communicate, his environment, what motivates him, how his activities progress, the institutions he has created, and the important social and governmental problems with which he must deal. The humanities and the social sciences are therefore related disciplines whose purpose is to help man to live in the most intelligent and satisfying manner.

The humanities are the study of what man has created, including his language, literature, art, and the record of his activities as revealed in archaeology and history. The social sciences are younger disciplines utilizing the modern methods of science: controlled observation, laboratory experimentation whenever possible, statistics, and analytical reasoning. Their potential significance for a troubled world is tremendous.

There are two large purposes for which the instructional program of the College of Humanities and Social Sciences is designed. One is the provision of a broad and liberal education to assist those who obtain it to receive in the fullest measure the values to be found in the complex civilization of today, and to contribute to the enlargement of those values in an effective and acceptable manner. The other is the preparation of a more limited group as qualified contributors to the discovery of additional truth to add to our present heritage and as capable professional participants in the productive affairs of daily living.

Courses intended to contribute to the first purpose are offered as a service to all students in the University. Career programs for those who choose to do their major work in this college are offered in each department. Advisers stand ready to consult with students in the selection of studies that will contribute most effectively to a broad education and to specialized training in each department.

### **Economics Major**

Supervisor, Willard B. Doxey (302 JK)

It is now possible to receive a degree with a major in economics in the College of Humanities and Social Sciences. This should interest students who contemplate entering law school, a graduate school of business, or graduate school for advanced degrees in economics. Economics is also excellent training for business or government service.

#### **Requirements for a major:**

Economics 111, 112, 274, 345, 453, 486 (or 586 and 587) and ten additional hours.

Statistics 221 and one other course in statistics.

#### **Requirements for a minor:**

Completion of minor requirement of no fewer than 14 hours in one or a combination of two departments in the College of Humanities and Social Sciences.

For additional information and student advisement see the chairman of the Economics Department, 302 Jesse Knight Building.

### **Asian Studies Program**

Supervisor, Paul V. Hyer (320 Maeser)

The Asian Studies Program is an interdepartmental program with the College of Humanities and Social Sciences which provides for a major leading to the A.B. degree.

The program is designed to give students a foundation for careers and advanced work in the specialized field of the Far East not provided by a major in one department. In the program, students will acquire a working competency in either the Chinese or the Japanese language, a broad knowledge of the civilizations of the Far East, and a more specialized knowledge in an academic discipline as applied to Asia. The program is intended for those students desiring to make an intensive study of the cultural history, modern development and problems of Asia. It applies the techniques of, and acquaints students with the contributions of, anthropologists, linguists, historians, political scientists, economists, sociologists, and geographers. The major as outlined proves useful to students contemplating careers in the academic areas, private industry, or government service. The import-export field and international services are particularly interested in applicants who have a strong background in Asian studies.

**Proposed Requirements and Courses**

1. Requirements: From among the courses listed below, a student will choose a total of 38 hours as follows:

- A. 20 hours in Chinese and/or Japanese.
- B. 14 hours of core courses (starred items) dealing directly with Asia.
- C. 4 hours of alternate (unstarred items) dealing in part with the Asian areas.
- D. Course work in at least three departments.
- E. It is strongly recommended that students complete enough courses in a particular field to constitute another major besides that in Asian studies since professional opportunities and graduate work are oriented toward the traditional disciplines.

Art	Hours
*404. Oriental Art History .....	2
<b>Anthropology</b>	
111. Cultures of the World .....	3
241. The Growth of Culture in the Old World .....	3
325. Introduction to Linguistics .....	2
401. Social Anthropology .....	3
495. Readings .....	1-3
<b>Geography</b>	
*470. Asia .....	3
490, 491. Readings .....	1
*571. Orient .....	2
585. Geography of Underdeveloped Areas .....	2
<b>History</b>	
*340. Asia .....	3
*343. Formative Period of Chinese Civilization .....	3
*344. Modern China .....	3
*346. Japan .....	2
*347. India .....	2
498. Readings .....	2
*548. Culture of Asia .....	2
<b>History of Philosophy of Religion</b>	
*555. Comparative World Religions (Asian) .....	2
*556. Comparative World Religions (Asian) .....	2
*656. Seminar in Asian Religions .....	2
*559. History of Christianity in Asia .....	2
<b>Language</b>	
Japanese:	
101, 102. First Year Japanese .....	4 ea.
201. Intermediate Japanese .....	4
301. Selected Readings .....	4
321, 322. Selected Readings .....	3
490, 491. Individual Study in Japanese .....	1-3
Chinese:	
101, 102. First Year Chinese .....	4 ea.
201. Intermediate Chinese .....	4
301. Selected Readings .....	4
321, 322. Chinese Composition and Conversation .....	3
490, 491. Individual Study in Chinese .....	1-3
<b>Political Science</b>	
115. Introduction to International Relations .....	3
212. Comparative Governments and International Relations .....	5
303. Modern Political Thought .....	3

350.	Government of the Soviet Union and East Europe .....	3
*352.	Government and Politics of East Asia .....	3
370.	International Relations .....	3
498.	Directed Readings in Political Science .....	1-2
565.	International Organization .....	3
572.	Soviet Foreign Policy .....	2
*580.	International Relations of the Far East .....	3
<b>Sociology</b>		
401.	Racial and Minority Group Relations .....	2
595.	Directed Readings .....	1-3
596.	Directed Readings .....	1-3
<b>Economics</b>		
383.	Comparative Economic Systems .....	3
430.	Economic Development .....	3
530.	Advanced Economic Development .....	3
*535.	Economic Problems of Asia .....	3
693.	Seminar in Comparative Economic Systems .....	2
<b>English</b>		
250.	Introduction to Literature .....	3
355, 356, 357, 358.	World Classics .....	3

Special courses offered from time to time during a summer session such as History 552, Indonesian Civilization; Political Science 308, Political Thought of Asia; Political Science 353, Governments of China, will satisfy requirements for the major.

### Hispanic American Studies Major

Supervisor, Lee B. Valentine (341 McKay)

The Hispanic American Studies Program is an interdepartmental program within the College of Humanities and Social Sciences which provides a major or a combined major and minor leading to the A.B. degree; it does not provide a minor alone. The program is designed to meet the professional and cultural goals of persons especially interested in Latin America whose needs are not served by a major in one department. The Language Department offers training in the literature and language of Latin America; the Geography Department, the geography and economy of the area; the Political Science Department, the governments and political institutions. Certain persons who seek employment in business or governmental agencies in Latin America, or who for other reasons are interested in the area, may best prepare themselves professionally by broad study in the literature, language, culture, geography, politics, and economy of the region. Such persons may enroll in the Hispanic American Studies Program. They cannot expect to receive the depth in one subject which a conventional major would give them, but the greater breadth and the comprehensive understanding of the area itself will compensate for the sacrifice of depth in a single subject.

#### Requirements for a major:

- (1) 22 hours in Spanish language courses from the "A" list below, 10 of which are upper division.
- (2) 4 hours or two courses of specified upper division classes in Spanish-American or Spanish literature.
- (3) 4 hours or two courses of specified classes from the "A" lists in each of three of the following subjects: anthropology, archaeology, geography, history, and political science.

The minimum required for a major is 38 hours, but it may be more, depending on the classes elected. Twenty-four hours must be upper division.

**Requirements for a combined major and a minor:**

- (1) Completion of the above requirements for a major.
- (2) 4 hours or two courses of specified classes from the "A" list of one of the listed subject-matter fields not included in the major.
- (3) 5 hours in at least three courses from the "B" lists of the six fields included in the major and minor; must be approved by supervisor.

The minimum for a major and minor is 47 hours, but it may be more. Thirty-three hours must be upper division.

The supervisor may approve satisfactory equivalents, in consultation with the departments. However, in no case shall the required totals be less than these stated above.

Following are the courses in the program:

		Hours
<b>Anthropology</b>		
"A" list:		
Anthropology 246.	The Growth of Culture in the New World .....	2
Anthropology 418.	Native Peoples of Central and South America .....	2
<b>Archaeology</b>		
"A" list:		
Archaeology 311.	Archaeology of the Scriptures .....	3
Archaeology 440.	Archaeology and Early History of Middle America ..	3
Archaeology 465.	Archaeology of South America .....	2
"B" list:		
Archaeology 590.	Recent Developments in Archaeology .....	4
<b>Geography</b>		
"A" list:		
Geography 455.	Latin America .....	3
Geography 490.	Readings .....	1
"B" list:		
Geography 491.	Readings .....	1
Geography 556.	South America .....	2
Geography 557.	Caribbean Area .....	2
<b>History</b>		
"A" list:		
History 351.	Colonial Latin America .....	2
History 352.	National Latin America .....	2
"B" list:		
History 334.	Spain .....	2
History 353.	Mexico .....	2
History 498.	Readings .....	TBA
<b>Political Science</b>		
"A" list:		
Political Science 460.	Governments of Latin America .....	2
Political Science 565.	International Organizations .....	2
"B" list:		
Political Science 498.	Readings .....	1-2
<b>Spanish (language)</b>		
"A" list:		
Spanish 101, 102.	First Year Spanish .....	4 ea.
Spanish 201.	Second Year Spanish Reading and Conversation .....	4
Spanish 301.	Selected Readings .....	4
Spanish 321, 322.	Advanced Composition and Conversation .....	3 ea.
(In exceptional cases, approval may be granted to substitute Portuguese 321 and 322 for Spanish 321 and 322).		
<b>Spanish (literature)</b>		
"A" list:		
Spanish 451.	Survey of Spanish-American Literature and Culture .....	3

Spanish 441. Survey of Spanish Literature and Culture ..... 3  
 (In exceptional cases, approval may be granted to substitute Portuguese 431 or 432 for one of these two courses).

**"B" list:**

Available Spanish Courses in 400 or 500 series, to be approved by the supervisor.

### **Pre-Legal Course**

There is no single prescribed pre-law program. A student may major in any one of several fields as basic preparation for law school. The prime requisite of a successful lawyer is a well-disciplined mind. It must be capable of embracing complex situations—identifying subtle distinctions and appraising arguments. It must be able to weigh opposing considerations and be capable of sustained effort over long periods of time. To produce such a mind, the college schedule should include courses intended to expand the mental powers of a student to the utmost and to bring about precision of thought.

The following important advice given by a leading law school may well be noted by pre-legal students:

"Few ideas are more fallacious or harmful than the notion that it is possible to dawdle through high school and college and then make the adjustment to higher standards promptly upon entering the professional school. Essential habits of concentration and effective methods of study must be acquired and developed during the pre-legal years."

In addition to the courses in general education prescribed by the University, it is suggested that a satisfactory pre-legal course might be selected from the following fields: English, political science, history, economics, accounting, psychology, speech, sociology, and mathematics.

Because of the growing tendency of law schools either to recommend or demand that the entering student have a B.A. or B.S. degree, the pre-legal student should plan his freshman and sophomore programs toward the acquisition of a bachelor's degree.

## **College of Nursing**

B. Ream Allen, Dean (2240 SFLC)

The basic collegiate program in nursing is organized to provide a balance of general and professional education. General education courses which partially fulfill University requirements are given in the first semester. Beginning in the second semester, courses in professional nursing are correlated with general education. Concepts of communications, mental health, pharmacology, nutrition, professional ethics, health teaching, interpersonal relationships, and spiritual values are integrated throughout the program. The course of instruction covers four academic years and one or two summer terms. Clinical practice is a supervised laboratory experience with theory courses given concurrently.

The College of Nursing is accredited by the National League for Nursing Accrediting Service and is approved by the Representative Committee for the Practice of Nursing in Utah. At the completion of the program, the student receives a Bachelor of Science degree and is eligible to take the state examinations for the license to practice nursing as a registered nurse and to use the title R.N. She is also eligible for Public Health nursing certification.

**Philosophy.** Within the framework of the philosophy of Brigham Young University, the College of Nursing faculty believes that the program for nursing education should endeavor to assist the student to further an awareness of spiritual values and a sense of social and civic responsibility. Each student, being a unique individual of dignity and worth, needs opportunities for continuing personal and professional growth.

**Purposes.**

1. To prepare professional nurses who can function effectively with potential leadership in first-level positions in all clinical areas of nursing: maternal and child health, medical-surgical, public health and psychiatric nursing.
2. To prepare individuals who can give skillful, intelligent, comprehensive patient care, and who can contribute productively to the prevention of illness and the promotion of health through working with patients and community groups.
3. To encourage and provide opportunities so that the student may enjoy a more satisfying and useful personal, family, and community life.

**Objectives.**

1. Increased understanding of concepts and facts from the physical, biological, and social sciences and the humanities and their implications for nursing.
2. Continuous development in understanding and utilization of the problem solving approach and critical thinking.
3. Progressive ability to understand and use communication skills effectively.
4. Increased understanding of behavioral dynamics and development of more effective interpersonal relationships.
5. Assumption of responsibility for self-direction and continuation of personal and professional growth.
6. Ability to function effectively and find satisfaction in the nursing role as a member of the health team and as a citizen in the community.

**Requirements**

**Admission.** All applicants must meet University admission requirements. Prospective students are advised to take at least one unit of algebra (a unit of geometry is desirable), chemistry, biology, physics, a foreign language, and three, preferably four, units of English.

A student should register in the College of Nursing upon entrance to B.Y.U. However, she may enroll in General College for the first semester in the prescribed courses for students of nursing. Then in order to continue in nursing the student must transfer to the College of Nursing second semester. Personal interviews with a faculty member and completion of special forms are required during the first semester at the University.

**Progression.** Continuance in the College of Nursing will be determined by the health records, adaptability to nursing as evidenced by attitudes and skills, and University grades. The grade average requirements are as follows:

- a. First semester freshman students must make a 2.00 ("C") grade average.
- b. Second semester freshman must make a 2.00 grade average. Students making a 1.90 to 2.00 average in either the second semester or summer term may continue their registration on probation.
- c. The cumulative grade average for freshman students at the beginning of the second year must be 2.00. Students making a 1.90 to 2.00 may continue registration on probationary status during the first semester of the second year.

An average grade of "C" (2.00) must be maintained each semester to remain in the College of Nursing.

**Graduation.** Candidates for a degree must fulfill the University requirements for graduation. It shall be the student's responsibility to meet these requirements. The program provides for a combined major and minor in nursing.

**Advisement**

Assistance in program planning during the time the student is determining her major interest is available through the College of Nursing office. Each stu-

dent in the College of Nursing has a faculty adviser who will help in the selection of courses and the planning of a schedule. It is desirable to consult with the adviser as early as possible to avoid lengthening the program unnecessarily. Sequence courses in chemistry and zoology necessitate beginning the program in the summer or first semester. The adviser will check the student's academic progress and help her use the resources of the University to the greatest advantage.

**Transfers.** For information on transfers from another college within the University, or admission to the College of Nursing from another institution, the student should consult the dean of the College of Nursing.

### **Fees and Scholarships**

Total educational costs are borne by the student. These are found in the catalog section titled "University Fees" listing general University expenses. To these the student should add the cost of uniforms. An itemized estimate of the costs to a student in the College of Nursing is available upon request.

The University policy concerning scholarships for leadership and academic standing are applicable to all students in the College of Nursing. After the freshman year, some special scholarships and educational assistance are available for nursing students with demonstrated ability and financial need.

### **College Organizations**

In addition to the regular college organizations, the Brigham Young University Student Nurses' Association is affiliated with the Utah and American Student Nurses' Association. This is a professional organization for students in the College of Nursing. Membership is extended to all students enrolled in nursing. The goals of the organization are to promote social, cultural, and educational activities; to foster cooperation and good fellowship; and to maintain the scholastic and moral standards of the University. Regular meetings are held each month alternating between Provo and Salt Lake City. Representatives of the local association attend the state association meetings and the national meetings. Association members have opportunities to develop leadership abilities, acquire professional attitudes and knowledge, and gain friends through working together.

### **Educational Facilities**

Students use the same facilities and have the same cultural opportunities as all other students on the campus. The newest and most effective teaching aids and equipment are provided in the College of Nursing laboratories and classrooms. The facilities utilized for nursing experience change from year to year depending upon the needs of the students and the learning experiences selected by the faculty. At present, clinical experience is provided in the Latter-day Saints' Hospital in Salt Lake City, the Primary Children's Hospital in Salt Lake City, Utah Valley Hospital of the Church of Jesus Christ of Latter-day Saints in Provo, Utah State Hospital in Provo, Utah City-County Health Department in Provo, the B.Y.U. Student Health Center, and other civil agencies. These Church operated hospitals are approved by the Joint Commission for the Accreditation of Hospitals, which is an organization sponsored by the American Hospital Association, American College of Surgeons, American Medical Association, and American College of Physicians.

The Latter-day Saints' Hospital in Salt Lake City has a capacity of 444 adult beds and 100 bassinets. It provides clinical fields for the practice of medical, surgical, operating room, obstetrics, and pediatric nursing.

The Primary Children's Hospital in Salt Lake City with a bed capacity of 110, including an isolation unit, provides experience in the care of the child.

The Utah Valley Hospital of the Church of Jesus Christ of Latter-day Saints has a current capacity of 240 beds and 36 bassinets. It provides clinical fields for the practice of medical, surgical, operating room, obstetrics, and pediatric nursing.

The Utah State Hospital in Provo, with a bed capacity of slightly less than 1,000 provides experience in psychiatric nursing.

The Utah City-County Health Department provides a generalized public health nursing program and offers field experience in nursing.

## College of Physical and Engineering Sciences

Armin J. Hill, Dean (294 ESC)

The College is divided into nine departments:

Air Science  
Chemical Engineering Science  
Chemistry  
Civil Engineering Science  
Geology and Geological Engineering Science  
Mathematics  
Mechanical Engineering Science  
Physics

The Department of Air Science (AFROTC) is under the direct supervision of regular officers of the United States Air Force. A description of the requirements and activities of this department is given in the section on air science (AFROTC) under List of Courses.

### Required High School Preparation

A student enrolling in the College of Physical and Engineering Sciences will find it necessary, in order to complete the prescribed curricula without loss of time, to have successfully completed the following high school courses or their equivalents:

- 3 units of English.
- 3 units of mathematics which must include one unit of plane geometry and one and one-half units of algebra, with additional coursework in algebra, trigonometry, or solid geometry strongly recommended.
- 1 unit of physical science which should be either chemistry or physics, is also strongly recommended.

Because mathematics provides the foundation for all work in the physical and engineering sciences, each entering freshman who intends to enroll in this college will be given a placement test which will include a test of his preparation and ability in mathematics. If his high school training is found deficient, he will be required to take remedial work. On the other hand, if this test shows unusual proficiency he may be excused from taking some of the more elementary college mathematics.

Deficiencies in high school preparation may be made up by enrolling in special courses which are offered for this purpose. If a student feels he has sufficient understanding of required subject matter to carry his regular college courses satisfactorily, he may elect to take a special examination which, if passed successfully, will excuse him from these remedial requirements. He should recognize that the time required to complete his college program will probably be extended by the length of time necessary to make up these deficiencies.

A student who will not have completed all recommended courses by the time he graduates from high school may complete them through Home Study courses or other courses offered by the Brigham Young University Extension Services. A high school senior who has the time and ability to carry extra courses may take extension courses which will receive college credit and count toward his baccalaureate degree. Information on any of these courses will be sent upon request.

### Physical Sciences

The Departments of Chemistry, Geology, Mathematics, and Physics each offer four-year courses leading to the degree of Bachelor of Arts or Bachelor of Science. Candidates for graduation in these departments must meet the general University requirements for such degrees and must also meet the special requirements outlined in each department.

The majors offered in these departments leading to a four-year degree are in chemistry, chemistry teaching, pre-dental chemistry, pre-medical chemistry, geology, mathematics, and physics. In addition to these, a major in mathematical statistics is offered in this college through cooperation of the Departments of Mathematics and Statistics.

### Engineering Sciences

The engineering curricula at Brigham Young University have been established as three-year professional programs preceded by one or two years of pre-professional study. It is expected that only exceptionally qualified high school graduates will be able to complete the program in four years. Experience over the nation has shown that the majority of engineering students require in excess of four years to complete requirements for their first degree. By deliberately planning for more than four years, it has been possible to include a full additional year of mathematics and additional science as a foundation for the engineering subjects. The professional courses can therefore be taught on a higher technical level than otherwise would be possible. The success of this arrangement is attested by the ready acceptance of the graduating students by industry and also by the leading graduate schools of the nation.

Courses leading to the degree of Bachelor of Engineering Science are offered in the Departments of Chemical Engineering Science, Civil Engineering Science, Electrical Engineering Science, and Mechanical Engineering Science. These curricula have all been accredited by the Engineering Council for Professional Development (ECPD). A course leading to the degree of Bachelor of Engineering Science is also offered in the Department of Geology and Geological Engineering Science.

The pre-professional program required of all engineering students should be in accordance with the following outline:

#### Pre-Professional Curriculum in Engineering Science

First Year		Second Year	
	F	S	
*Chemistry 105, 106 ..	4	4	Physics 211, 213 ..... 4
Math 111, 112 .....	5	5	Physics Lab 212, 214.. 1
English 111, 112 .....	3	3	Math 213, 334 .....
**C.E. 101, 102 .....	2	2	Statistics 321 .....
Religion .....	2	2	C.E. 203, 301 .....
Physical education ...	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....
M.E. 100 .....	1		Physical education ...
Health 130 .....		2	††Group electives .....
Total Hours .....	17 $\frac{1}{2}$	18 $\frac{1}{2}$	Total Hours .....

\*Chemical engineering majors should take Chemistry 111, 112.

\*\*Electrical engineering students replace C.E. 102 with a group elective. Chemical engineering students are excused from either C.E. 101 or 102.

†Chemical engineering majors take Chemistry 113 in place of the group elective during first semester. In the second semester they take Chemistry 321 and Chemical Engineering 271. Such students postpone C.E. 301 and the group elective to the third year.

††Civil engineering students should take C.E. 211 and 212 in place of the group electives.

The programs for the subsequent professional curricula are given in the departmental sections of the catalog. The high school graduate of superior ability who has completed the equivalent of college algebra and trigonometry and who can demonstrate his ability by successfully passing examinations in these subjects, may be allowed to enroll directly in the sophomore sequences of mathematics and physics, thereby being able to complete his pre-professional program in about one year. Usually, in this case, he can expect to have to attend at least one summer session. Students with adequate preparation in drafting may be excused from the first course in graphics, C.E. 101. Additional time can be saved if the student has had such preparation that he can be excused from some of the required English, history, and health education courses.

As he nears the end of his pre-professional work, the student must make application to his department for entrance into the professional program. Progress of each engineering student will be reviewed by his major department. Prior to entrance into the professional program, a student must have received an average grade of "C" or better in his work in chemistry, in mathematics, and in physics. In addition, a qualifying examination may be given as may be determined by the major department.

If the student meets the minimum requirements set by his department, he will be notified of his admission to the professional curriculum. If he does not so qualify, he may petition his department for admission on a probationary status in which case his work the ensuing year will be subject to continual review. If it is not entirely satisfactory, the student will not be permitted to continue his work in the department. Transfer students and those who have been out of school for a year or more should contact their department prior to or during registration. No student will be permitted to register in any of the engineering science departments longer than one semester if not pursuing one of the regular engineering science curricula.

### Graduate Courses

Instruction leading to a Master of Science degree is offered in chemical engineering, chemistry, civil engineering, electrical engineering, geology, mathematics, mechanical engineering, and physics. Instruction leading to the degree of Doctor of Philosophy is offered in chemistry, geology, and physics.

Each graduate student must fill all of the requirements for advanced degrees as outlined by the Graduate School. The responsibility of knowing and fulfilling these requirements rests with the student.

## College of Physical Education

Milton F. Hartvigsen, Dean (213 SFH)

The following departments are in the College of Physical Education:

- Health and Safety Education
- Intercollegiate Athletics
- Physical Education—Men
- Physical Education—Women
- Recreation
- Youth Leadership

The following additional areas are given special attention:

- Dance
- Intramural sports
- Pre-physical therapy

This college, unique in American universities, has two significant contributions to make: service and development of leadership.

Outstanding in its services are those functions which contribute to student life. The physical education program provides vigorous participation in specific physical activities which are part of the cultural heritage of American youth. It is intended that individual team and winter sports, various types of rhythms and dancing, gymnastics and tumbling, aquatics, special body building activities, and other activities provide opportunity for development, expression, and normal participation.

Those students with specialized skills in athletics are encouraged by well-coordinated programs in intramurals and in intercollegiate athletics. Through affiliation with the Western Athletic Conference and the National Collegiate Athletic Association, there are opportunities in intercollegiate athletics for competition in baseball, basketball, football, golf, gymnastics, tennis, track, and

wrestling. Varsity squads make scheduled trips into selected areas meeting teams of other universities.

While opportunities for leadership by educated men and women are always unlimited, the demand is particularly high for those whose professional areas lie within this college. Professional training is emphasized in these major fields: recreation, youth leadership, physical education, and health and safety education. Certification for teaching in Utah may be completed, and certification for teaching in other states may be arranged readily. Dance and pre-physical therapy are given attention as areas in which students may specialize.

Brigham Young University is the first university to offer a major in youth leadership. The program is two-fold: the training of men for professional scouting and the preparation of men and women to serve the Church and community in youth leadership capacities.

Brigham Young University alumni have gone to all points of the globe and have actively guided communities and Church members to the ends of abundant and wholesome living. The Church of Jesus Christ of Latter-day Saints, through its beliefs and teachings, has developed a real heritage in health practices and in family, Church, and community recreation. Brigham Young University, in harmony with the objectives of the Church, plans not only for participation by its members, but for active and exemplary leadership by them. It is a goal of this college to help achieve this.

**Department of Health and Safety Education.** Emphasis is placed on the education aspects of health, including safety and driver education, as well as the health sciences. This department functions in the promotion of proper health attitudes and practices. It also cooperates with the home, University health center, physicians and dentists, public health departments, and other groups which have responsibilities in the promotion of health. The health curriculum deals primarily with health instruction; stress is placed on personal health, sanitation, nutrition, and personal safety practices. Courses are offered for all students and for teachers working toward certification in public schools of the state.

**Department of Intercollegiate Athletics.** Brigham Young University is a member of the Western Athletic Conference and the National Collegiate Athletic Association. The school competes in all sports sponsored by the conference.

The athletic program at Brigham Young University serves as a vital educational training ground and laboratory dedicated to teaching young men important individual traits which will better enable them to perpetuate the American tradition. The program is designed to develop such characteristics as capacity to lead and direct, respect for discipline and authority, social and moral understanding, ability to act effectively under stress, capacity for self-discipline in the interest of accomplishment, and determination to overcome obstacles. Individual and team play promotes cooperation, sportsmanship, health, strength, and body vigor in the participants.

**Departments of Physical Education.** These departments, one for men and one for women, work together in providing (1) service courses, (2) professional education for prospective teachers of physical education and athletic coaching on the undergraduate and graduate levels, and (3) special curricula in dance and pre-physical therapy.

Physical education is planned to develop organic power, physical fitness, skill in activities, and enthusiasm for useful and desirable pursuits during leisure time throughout life. Its program is also planned to develop social habits and attitudes which will prepare students for leadership roles in college, Church, family, and community life. Many courses are offered on a coeducational basis.

**Department of Recreation.** This department has a number of basic functions in fulfilling its responsibility to the students, the University, the Church, and the profession. Among the responsibilities specifically recognized are (1) to prepare professional recreation leaders, (2) to qualify voluntary leaders for Church and community service, (3) to provide and supervise recreational activities for students and faculty, and (4) to provide consultation service for campus, community, and state groups. To meet these responsibilities this department has developed an expanded curriculum and secured many new facilities, others

are being planned for the immediate future, and a highly trained staff has been assembled to conduct the program.

The general purpose of the expanding intramural program is to afford all students the opportunity to take part in a well-organized program which includes a wide range of activities. An extensive program for both men and women is provided.

**Department of Youth Leadership.** The Bachelor of Science degree in youth leadership embraces a curriculum of highly specialized courses providing an intensive examination of and experience with the Boy Scouts of America. Coupled with this is a more comprehensive purpose. It is to meet an obligation which the University has to the wards and stakes of the Church by providing graduates with an appreciation of the increasing challenge of youth guidance and with skills to help the Church meet this challenge.

The objectives of the Department of Youth Leadership are, then, two-fold: (1) to train college men and women in the basic principles and skills of scouting to the end that it may serve boys as a laboratory for Christian living, and (2) to provide training for prospective professional career men in youth leadership for the Boy Scouts of America and other allied organizations.

## College of Religious Instruction

David H. Yarn, Jr., Dean (216 S)

The following departments are in the College of Religious Instruction:

Bible and Modern Scripture  
Biblical Languages  
History and Philosophy of Religion  
Religious Education  
Theology and Church Administration

This college administers all religious instruction sponsored by the University.

It has always been the view of the Church of Jesus Christ of Latter-day Saints that in the training of its youth there should be a proper integration of moral and religious knowledge and values with secular knowledge. From its inception, Brigham Young University, firm in the belief that no life is full and complete unless established upon a sound ethical and religious basis, has offered courses in religion.

There are many courses in the College of Religious Instruction which are available to the undergraduate student although no bachelor's degree is offered by this college. The basic philosophy underlying the educational process at Brigham Young University is that an undergraduate student study religion simultaneously with his study of the other academic disciplines. Therefore, except under extenuating circumstances, a student will take a course in religion each semester he is in residence rather than accumulating excessive religion credit in one semester in order to be excused from religion in another semester.

**For general education requirements in religion, see the Student Academic Services section of this catalog.**

### Graduate Studies in Religion

Each graduate student must fill all the general regulations and requirements for advanced degrees as outlined by the Graduate School. **The responsibility of knowing and fulfilling these regulations and requirements rests with the student.**

The College of Religious Instruction offers training leading to the Master of Religious Education, Master of Arts, and Doctor of Philosophy degrees. A student must have adequate preparation on the undergraduate level before beginning work leading to one of these degrees.

The admissions committee of the department of the college in which the student wishes to pursue a degree will examine the student and evaluate his preparation and fitness for a graduate program.

Graduate work is offered by the College of Religious Instruction in the departments of Bible and Modern Scripture, History and Philosophy of Religion, and Religious Education. A student working toward the master's degree may elect a major in any one of these fields. The Doctor of Philosophy degree, however, is offered at present only in bible and modern scripture and in history and philosophy of religion. A candidate for a doctorate must elect either one or two minor fields, in consultation with his advisory committee.

For a statement of the detailed requirements for degrees in the various departments consult the Graduate School Catalog. Brochures describing the individual programs may be obtained from the chairmen of the respective departments.

## Graduate School

Wesley P. Lloyd, Dean (208 ASB)

### GENERAL INFORMATION

#### Purpose

The first graduate offerings of Brigham Young University were established in 1922, forty-seven years after the founding of Brigham Young Academy and within an administrative unit designed as the Graduate Division. The objective of graduate study was then stated in these terms: "The essential aim . . . is to develop the power to do independent work and to encourage the spirit of research. Each candidate is expected to possess a broad general knowledge of his major subject with less detail in the case of his minor subjects."

Institutions of higher learning reflect the aspirations and major achievements of the American people. They carry the ideals, dreams, and hopes of democracy from generation to generation. From their ranks must come men and women trained in the skills, the arts, and the sciences and dedicated to a high spiritual understanding through which men can work for the common good.

#### Graduate Faculty

The faculty of the Graduate School consists of members of the general faculty who are approved by the dean of the Graduate School from among those who hold the rank of professor or associate professor, or assistant professor with a doctoral degree, and others approved by the Graduate Council. It is the responsibility of the graduate faculty to formulate and recommend University-wide requirements for all graduate degrees and to recommend regulations and facilities to promote the scholarly activities and research interests of graduate students.

The general provisions of the graduate programs are established by the graduate faculty, subject to review by the academic vice-president or the President of the University. Special consideration is given to the circumstances and needs of each department or doctoral area. Programs are established on a broad base to permit the departments and the graduate school to regulate specific requirements. The specific requirements for a given degree are proposed by the department concerned and reviewed by the Graduate Council, the dean of the Graduate School, and the administration.

#### Administration of the Graduate School

**The Graduate Council.** The chief administrative body for the graduate program is the Graduate Council, which includes the dean of the Graduate School as chairman, the director of research, four members of the graduate faculty elected at large for terms of three years and one member of the graduate faculty elected for a three-year term from each of the areas of subject matter included in the

undergraduate colleges. The academic vice-president and the director of libraries are ex officio members of the council. The Graduate Council is empowered to act for the graduate faculty on all student petitions, on departmental requests for approval of faculty members for graduate instruction and supervision, and initiates policy proposals regarding the graduate program.

**The Graduate Dean.** The dean of the Graduate School as immediate administrator of the graduate program of the University is responsible, under authorization of the academic vice-president and the President, to execute policy and procedure of the Graduate School. He serves as chairman of the Graduate Council and conducts meetings of the graduate faculty.

## GENERAL REQUIREMENTS

### Admission to the Graduate School

At Brigham Young University, all students who have the bachelor's degree from an accredited university register with the Graduate School, except in the case of a student who is seeking a second bachelor's degree.

**Requirements for Admission on a Degree-Seeking Basis.** For admission as a degree-seeking graduate student an applicant must present a 3.0 (B) cumulative average during his latest two years of academic work or during a later period approved by the department and the dean of the Graduate School. The applicant may be required to furnish additional evidence concerning his ability to pursue graduate work in his major field, such as capacity for research or creativity, facility in written and oral expression, appropriate professional objectives, or through qualifying examinations. Remedial work or other requirements may be prescribed.

A student whose native language is not English is cautioned that adequate command of the English language is indispensable to successful graduate work. He must include with his application for admission a statement from a responsible official that the applicant knows how to read, write, speak, and understand the English language sufficiently well to be able to pursue a satisfactory program of study in the Graduate School. Admission ordinarily will be granted on the provisional basis pending the applicant's experience on the campus that demonstrates his ability to do successful graduate work.

**Procedure for Admission on a Degree-Seeking Basis.** To be admitted to the Graduate School on a degree-seeking basis, a student should file with the Admissions Office of the University an application which includes the following: (1) A form for admission or readmission to the University (unless the student was in attendance the preceding semester), (2) Two transcripts of all previous college work (if that work was not done at Brigham Young University). In addition to the items submitted to the Admissions Office, there should be submitted to the dean of the Graduate School a form for admission to the Graduate School on a degree-seeking basis, and three letters of recommendation. Two of these letters should relate to the student's academic ability and the third to his character. These letters should be sent directly to the Graduate Dean by those making the recommendations. Forms for application and for letters of recommendation are provided by the Graduate School office.

Application forms should be filed at least two months before the beginning of the semester in which the student plans to begin his work. Students who do not have their applications filed by this date cannot be assured that their applications will be acted upon by registration time.

The forms are evaluated by the department in which the student intends to major and by the dean of the Graduate School. Permission to register as a graduate student is by notice from the Admissions Office of the University and does not by itself constitute permission to seek a higher degree. Permission to seek a higher degree is by notice signed by the chairman of the department and the dean of the Graduate School.

**Provisional Students.** The student whose academic record is below 3.0 (B) but not below 2.50 for his latest two years of college work, or who matriculated from

a university which is not accredited, may be admitted on a provisional classification upon the recommendation of his department chairman and approval of the graduate dean. Admission from this category to full degree-seeking status may be granted upon the completion of at least 12 semester hours of "B" credit in residence work prescribed and recommended by the department chairman, and approved by the dean of the Graduate School. Up to 12 semester hours earned while a provisional student may be applied on the degree if approved by the student's advisory committee.

**Admission on a Non-Degree-Seeking Basis.** A student with the bachelor's degree may register on a non-degree-seeking basis for a wide variety of courses for which he is prepared. To be admitted to the Graduate School on a non-degree-seeking basis, a student should file with the University Admissions Office (unless he was in attendance the preceding semester), an application for admission or readmission, furnish an official transcript of all preceding work at institutions attended (if that work was not done at Brigham Young University), show evidence of having received the bachelor's degree, and present an academic record of 2.0 or higher. Admission is by means of a registration permit issued by the University Admissions Office. If a student has been in attendance at Brigham Young University the previous semester, registration materials are automatically prepared for him.

**Graduate Credit for Seniors.** If, during the last semester of the senior year, a candidate for a baccalaureate degree finds it possible to complete all requirements for such a degree with a registration of fewer than sixteen hours of undergraduate credit, he may register for graduate credit to the extent that the total registration shall not exceed sixteen hours during the semester. A form provided by the Graduate School office, stating that all baccalaureate requirements are being met during the current semester, must be signed by the appropriate undergraduate dean and presented to the dean of the Graduate School prior to such registration. This registration does not constitute permission to seek a higher degree.

**Transfer Credit.** Graduate work not in excess of 10 semester hours may be transferred from other institutions upon the approval of the student's advisory committee and the Graduate Council. Forms for petitioning for such transfers are available in the Graduate School office. Credit transferred must represent work which is a fair and reasonable equivalent of corresponding work at this University. All transferred credit must be of grade "B" or better. At least twenty semester hours toward the master's degree must be taken on the Brigham Young University campus in Provo.

**Student Load.** An academic load for graduate students not part-time employed is from 10 to 16 semester hours or their equivalent in research. Teaching assistants and others employed part-time should limit their loads to fewer than 12 credit hours as approved by the registration adviser and the dean of the Graduate School. Full-time employees should register for not more than 5 semester hours. Experience has shown that because of the intense character of graduate work and the academic grade-point average required, it is usually advisable for graduate students to limit their programs to less than the maximum permitted.

**Scholastic Standards.** The degree-seeking student who fails to maintain at least a 2.7 grade-point average in his graduate work each semester will be placed on probation and must earn a "B" (3.0) average in graduate level work the next semester or he ceases to be classified on a degree-seeking basis. The average grade of all graduate work attempted must be at least "B." At least three-fourths of all work applying on the degree must be of grade "B," or better; none of the remainder may be of a grade lower than "C."

**English 99.** Students whose ability to write clearly and correctly is not deemed satisfactory by the department involved are required to enroll in English 99, a non-credit course, Problems in Thesis Writing. Students should take this course at the earliest possible time.

**Departmental Requirements.** Special departmental requirements for advanced degrees are listed under the major department.

**Application for Graduation.** A student contemplating graduation should file an application for graduation with the Graduate School office and pay the graduation fee. This should be done not later than January 15 for June graduates and by March 15 for August graduates, and before filing the thesis with the Graduate School office or scheduling the final examination.

**Graduation.** All graduating students must attend the graduation exercises unless they have made satisfactory explanations of absence and have been officially excused under the authority of the President of the University. The request to be excused from the commencement exercises must be presented in writing at least two weeks prior to commencement. Extreme emergencies of either illness or death in the family are the only exceptions to this requirement. Students not officially excused from commencement will not be graduated until they attend a later commencement in person.

The Graduate School offers doctoral degree programs in 24 fields, distributed through 15 graduate departments, and master's degree programs in 69 fields, distributed through 43 graduate departments. Thus, a department may be responsible for the operation of the graduate program in several fields. On the other hand, one field may include offerings from several departments. The departments fall within the areas of: biological and agricultural sciences; business; education; family living; fine arts; humanities and social sciences; physical and engineering sciences; physical education; religious instruction; and industrial education.

## GRADUATE DEGREE PROGRAMS OFFERED BY DEPARTMENTS

### Doctor of Philosophy

- Bacteriology
- Bible and Modern Scripture
- Botany
- Chemistry
  - Analytical-Physical Chemistry
  - Biochemistry
  - Inorganic Chemistry
  - Organic Chemistry
  - Physical Chemistry
- Educational Research and Services
  - Educational Psychology
- Geology
  - Economic Geology and Mineralogy
  - Stratigraphy, Sedimentation, and Paleontology
  - Structural, Field, and Dynamic Geology
- History
- History and Philosophy of Religion
- Human Development and Family Relationships
  - Child Development
  - Family Life Education
  - Marriage Counseling
- Physics
- Psychology
  - Clinical Psychology
  - General Psychology
- Sociology and Anthropology
- Zoology and Entomology

### Doctor of Education

- Educational Administration
- Educational Research and Services
  - Educational Psychology

## Master of Arts and Master of Science

Accounting  
Agronomy  
Animal Husbandry  
Archaeology  
Art  
    Painting and Sculpture  
    Design and Crafts  
Bacteriology  
Bible and Modern Scripture  
Botany  
Business Education  
Chemical Engineering  
Chemistry  
    Analytical-Physical Chemistry  
    Biochemistry  
    Inorganic Chemistry  
    Organic Chemistry  
    Physical Chemistry  
Civil Engineering  
Dramatic Arts  
    Interpretation  
    Radio and Television  
    Theatre and Dramatic Arts  
Economics  
Educational Administration  
Educational Research and Services  
    Educational Psychology  
    Personnel and Guidance  
    School Psychology (interdepartmental)  
    Special Education  
Electrical Engineering  
English  
    American Literature  
    English Literature  
Foods and Nutrition  
Geography  
Geology  
    Economic Geology and Mineralogy  
    Stratigraphy, Sedimentation, and Paleontology  
    Structural, Field, and Dynamic Geology  
Health  
History  
History and Philosophy of Religion  
Human Development and Family Relationships  
    Child Development  
    Family Life Education  
Industrial Education  
Institute of Government Service  
Instruction  
    Elementary Instruction  
    Secondary Instruction

Journalism

Languages

French

German

Greek

Latin

Portuguese

Spanish

Mathematics

Mechanical Engineering

Music

Music Education

Music Theory

Musicology

Physical Education

Physics

Political Science

Psychology

General Psychology

School Psychology (interdepartmental)

Recreation

Semitic Languages

Sociology and Anthropology

Speech

Public Speaking

Speech Pathology

Zoology

Natural History

Entomology

Morphology and Experimental Zoology

### **Master of Business Administration**

Business Management

### **Master of Education**

Educational Administration

Educational Research and Services

Educational Psychology

Personnel and Guidance

School Psychology

Special Education

Instruction

Elementary Instruction

Secondary Instruction

### **Master of Religious Education**

Religious Education

Minors are offered in the fields listed above, in addition to the following fields:

Agricultural Economics

Applied Music

Basic Chemistry Minor

Business Management

Educational Philosophy and Programs

Finance and Banking  
Industrial Management  
Library Science  
Marketing  
Statistics

## GRADUATE DEGREE PROCEDURE AND REQUIREMENTS

### Doctor of Philosophy Degree

The Doctor of Philosophy degree is awarded for distinguished attainment in a recognized field of learning, not merely for the completion of courses of study. **Classification of Students.** Students admitted to the Doctor of Philosophy degree program are classified as **doctoral applicants** and **doctoral candidates**. The student must be admitted to degree-seeking status as a **doctoral applicant** at Brigham Young University not later than the beginning of his last three semesters of full-time study intended to apply on the degree. The student is **admitted to candidacy** after meeting conditions for admission to candidacy and before registering for the last two semesters of full-time study intended to apply on the degree.

**Advisory Committee.** The student's program and his dissertation are developed under the direction and supervision of an advisory committee. The advisory committee for a student working for the Doctor of Philosophy degree consists of at least three members. These members are nominated by the student from the graduate faculty of his major and minor fields in consultation with the chairman of his major department and with the approval of the dean of the Graduate School. The chairman of the advisory committee is a representative of the major field. All work which is to apply toward the Doctor of Philosophy degree must be approved by the advisory committee.

As soon as a student's program of study is determined in consultation with the advisory committee, he should supply each member of the committee with a copy of the program, and file with the Graduate School office a properly signed copy.

The membership of the advisory committee may be changed with the approval of all prospective members of the newly constituted committee, the chairman of the major department, and the dean of the Graduate School. After such a change the student reviews his entire program with the new committee.

**Academic Requirements.** The student will select a major field of study and at least one minor or supporting field approved by the department chairman and the dean of the Graduate School. Specific requirements in these fields are described by the departments. The equivalent of a minimum of three years of full-time study beyond the bachelor's degree is required. A full semester of residence credit is defined as from twelve to sixteen hours on course work or the equivalent in research per semester. The advisory committee has authority to decide what work will be accepted to meet these requirements, and may accept or require up to two years of full-time study elsewhere. Ordinarily two years of full-time course work or research is to be taken on the Brigham Young University campus in Provo. At least two consecutive semesters of work or the equivalent of 24 or more semester hours must be taken on the Provo campus. For special reason and on recommendation of the student's advisory committee and by final authorization of the Graduate Council, the minimum time in residence on the Provo campus may be reduced to two full semesters during which 24 or more credit hours will be earned.

**Language Requirement.** Before completing his comprehensive examinations and being admitted to candidacy, the student must present satisfactory evidence of proficiency in two foreign languages, one of which must be French or German. The selection of both required languages will be made in consultation with the student's advisory committee. In exceptional cases, the student may petition the Graduate Council to substitute another language for French or German.

The language examinations are given during the months of October, February, April, and July, the last week of the month at 4:00 p.m. Doctoral applicants

wishing to take the examination must apply two weeks in advance of the scheduled date. Application should be made at the office of the graduate dean.

The language examination is administered by the Department of Language in agreement with the department in which the student is majoring. If the student is not prepared to pass examinations in both languages at entrance, it is necessary at the time of his application for admission to satisfy the dean that he is taking the necessary steps to do so promptly.

**Comprehensive Examination.** The student must pass a comprehensive examination on his doctoral fields under the direction of his advisory committee. This examination will normally be given at the end of the second year of graduate study.

**Admission to Candidacy.** Satisfactory completion of the comprehensive examination and the language requirement is necessary for admission to candidacy for the Doctor of Philosophy degree. The student has the responsibility of filing with the dean of the Graduate School a form, provided by the office of the graduate dean and signed by the advisory committee and the chairman of the major department, stating that all conditions for admission to candidacy have been met and that the dissertation subject has been approved.

Notice by the dean of the Graduate School then admits the student to candidacy for the degree. This will normally be done after the completion of two years of graduate work. At least two semesters of full-time study must be completed after admission to candidacy and before graduation.

**Dissertation.** After being admitted to candidacy, the student carries out original research for an acceptable dissertation under the direction of his advisory committee.

An academic department may, on special authorization of the Graduate Council, choose as a policy, provision No. 2 as indicated below. In departments where such approval has been granted, the candidate may choose either of the two following provisions for filing the dissertation.

(1) A complete, signed, but unbound copy of the dissertation in final form, and one extra original copy of an approved abstract (two copies if the student is majoring or minoring in education) equaling 60 lines of 60 spaces each, must be filed with the office of the graduate dean at least fifteen days prior to the final examination and not later than thirty days before graduation.

(2) An approved copy of the dissertation in good form, but not in final form, together with an approved copy of the abstract, equaling 60 lines of 60 spaces each, must be filed with the office of the graduate dean not later than 45 days prior to graduation and fifteen days prior to the final examination.

If provision No. 2 is chosen, a complete, signed, but unbound copy of the dissertation in final form and one extra original copy of an approved abstract (two copies if the student is majoring or minoring in education) must be filed with the office of the graduate dean at least fifteen days before graduation.

A minimum of four copies of the dissertation and six copies of the abstract is required by the Graduate School.

**Final Examination.** Not later than fifteen days before graduation, the student must pass a final examination on his dissertation and applicable subject matter given by a committee of not fewer than five members. The committee consists of the advisory committee, plus such other members as the department chairman or the dean of the Graduate School may designate.

**Time Limit.** All academic work applying toward the Doctor of Philosophy degree must be completed within a period not to exceed nine years.

Students may secure, at the office of the graduate dean, an information form as a guide to complete administrative procedures for graduate degrees.

### Doctor of Education Degree

**Admission Requirements.** For admission to degree-seeking status as a doctoral applicant, the student must have completed 22 semester hours of education or

possess certification as a teacher, must have completed two years of successful professional experience, and must possess demonstrable acquaintance with the field of education. The student will be tested for familiarity with background factors of significance to education.

**Classification of Students.** Students seeking the Doctor of Education degree are classified as **doctoral applicants** and **doctoral candidates**. The student must be admitted to degree-seeking status as a **doctoral applicant** at Brigham Young University during the first semester he is enrolled as a full-time graduate student. He is **admitted to candidacy** after meeting conditions for admission to candidacy and before registering for the field project and internship.

**Academic Requirements.** The Ed.D. degree is awarded for distinguished attainment in a recognized field of learning. The student must meet the planned program as established by his major department. The equivalent of a minimum of three years of full-time study beyond the bachelor's degree is required. Full-time study is defined as twelve to sixteen hours in course work or the equivalent in research per semester. The advisory committee has authority to decide what work will be accepted to meet these requirements, and may accept or require up to two years of full-time study elsewhere. One year must consist of two consecutive semesters on the campus of the University, during which the student takes one two-hour seminar each semester. There is no foreign language requirement. The student must demonstrate proficiency in statistics to the satisfaction of the advisory committee.

**Comprehensive Examination.** A comprehensive examination is administered to all doctoral students after approximately sixty semester hours have been completed. A final written examination is administered to all doctoral students at the completion of their course work. The final oral examination is administered at the conclusion of the field project.

**Admission to Candidacy.** Satisfactory completion of the final written examination is necessary for admission to candidacy for the Doctor of Education degree. The student has the responsibility of filing with the dean of the Graduate School a form provided by the office of the graduate dean and signed by the student's advisory committee and the chairman of his major department, stating that all conditions for admission to candidacy have been met.

Notice from the dean of the Graduate School then admits the student to candidacy for the degree. This normally will be done after the completion of his graduate courses.

**Field Project and Report.** A research project for the improvement of an educational program must be carried out under the direction of the student's advisory committee, after he has passed the final written examination. The report of the field study must meet the same standards of format as the Doctor of Philosophy dissertation and must be submitted under the same schedule and requirements regarding publication.

**Final Examination.** Not later than 15 days before graduation, the student must pass a final examination on the field project. The examining committee consists of the student's advisory committee and such others as the department chairman and dean of the Graduate School may designate.

**Time Limit.** All academic work applying toward the Doctor of Education degree must be completed within a period not to exceed nine years.

### Master's Degrees

**General Requirements.** Departments are authorized to establish the Master of Science or the Master of Arts degree program on two plans: Plan A requires a thesis. Plan B requires, in lieu of a thesis, additional academic performance beyond thirty hours of course work to be recommended by the department and approved by the Graduate Council.

Admission on a graduate degree-seeking basis must be completed before the student registers for the last 15 hours of credit intended to apply on the degree.

**Procedure for the Degree-Seeking Student.** The student's program and his thesis are developed under the direction and supervision of an advisory committee. The advisory committee for the master's degree-seeking student consists of at least two members. These members are nominated by the student from the graduate faculty of his major and minor department in consultation with the chairman of his major department and with the approval of the dean of the Graduate School. The chairman of the advisory committee is a representative of the major field. This committee advises the student in his proposed program, approves his registration, and directs his research and the work on his thesis. The advisory committee must be formed and the names of the members on file in the office of the graduate dean within two months after a student's first registration on a degree-seeking basis. At least 15 hours must be taken after the advisory committee has been formed and must be approved by the advisory committee at registration. All work which is to apply toward an advanced degree must be approved by the advisory committee.

An advisory committee may be changed with the approval of all prospective members of the newly constituted committee, the chairman of the major department, and the dean of the Graduate School. After such a change, the student reviews his entire program with the new committee.

**Amount and Distribution of Credit.** The master's degree requires a minimum of 30 semester hours of credit and may be obtained by completing one of the options listed below. The second option is available only after a department has submitted its program to and been approved by the Graduate Council.

Applicable to Options I and II is the provision that at least 21 credit hours must consist of courses for which there is a systematic body of subject matter and is to be identified with a given course number such as ordinarily constitutes a formal course or seminar. Individual reading, thesis, research, and special problems may not be included in these latter totals.

**Option I.** At least 15 semester hours, exclusive of thesis, must be in the major field, and at least 9 semester hours in a minor field approved by the major department.

**Option II.** Thirty hours must be in the major field or in direct support of the major field. Courses outside the major field and considered as in direct support of the major field must be specified and listed by the department in advance, and such courses should not constitute more than 12 of the 30 credit hours.

Lower division credit is not applicable toward a graduate degree.

A limited amount of upper division undergraduate work may be applied toward the master's degree only if starred and initialed on the program outline of a degree-seeking student by the student's adviser at the beginning of the student's graduate work. No such work carrying a "C" grade will be applied toward the master's degree. At least 20 hours of the work for the master's degree must be in the 500 series or above and taken on the Brigham Young University campus in Provo.

No correspondence credit is applicable toward a master's degree.

The prospective candidate for the master's degree enrolls for thesis (course 699) in his major department. Before beginning his research or creative work, the student must obtain approval of the thesis problem from his advisory committee, and he must file with the office of the graduate dean a title card and a prospectus both signed by the members of the advisory committee. He is required to complete at least one semester of study after this is done.

An academic department may, on special authorization of the Graduate Council, choose as a policy, provision No. 2 as indicated below. In departments where such approval has been granted, the candidate may choose either of the two following provisions for filing the thesis.

(1) A complete, signed, but unbound copy of the thesis in final form, and one extra original copy of an approved abstract (two original copies if the student is majoring or minoring in education) equaling 60 lines of 60 spaces each,

must be filed with the office of the graduate dean at least fifteen days prior to the final examination and not later than thirty days before graduation.

(2) An approved copy of the thesis in good form, but not in final form together with an approved copy of the abstract equaling 60 lines of 60 spaces each, must be filed with the office of the graduate dean not later than 45 days prior to graduation and 15 days prior to the final examination.

**Thesis.** If provision No. 2 is chosen, a complete, signed, but unbound copy of the thesis in final form and one extra original copy of an approved abstract (two copies if the student is majoring or minoring in education) must be filed with the office of the graduate dean at least 15 days before graduation.

A minimum of four copies of the thesis and five copies of the abstract is required by the Graduate School office. The abstract should be bound with the thesis, following the bibliography.

Detailed directions for the form of the thesis may be obtained from the major department. A maximum of six hours of thesis credit may be counted in the 30-hour requirement toward the master's degree.

**Final Oral Examination.** The passing of a final oral examination is required not less than 15 days prior to graduation if provision No. 1 is chosen, and not less than 30 days prior to graduation if provision No. 2 is chosen.

It is the duty of the student, following the submitting of copies of his thesis to the office of the dean of the Graduate School, to schedule the final examination. This he does after obtaining, from the chairman of the major department, the names of the examining committee. Forms are available for this purpose at the office of the graduate dean.

The examination committee for the master's degree will consist normally of at least four members. There must be at least two examiners from the student's major field and one examiner from the student's minor or supporting field. There shall be on the committee at least two examiners who are not members of the student's thesis advisory committee. The committee may consist of a minimum of three examiners if constituted as provided above. In any case, more than one negative vote of the examination committee will prevent the student from passing the examination. Other members of the graduate faculty may attend the examination and enter the discussion, but they may not vote.

The final oral examination consists of a defense of his thesis by the student and a searching examination into the student's preparation and competence in his major and minor or related fields.

### Master's Degree Programs

**Master of Arts.** The Master of Arts degree is awarded upon completion of general and departmental requirements, plus completion of the foreign language requirement for a Bachelor of Arts degree (18 semester hours of a foreign language).

**Master of Science.** The Master of Science degree is awarded upon completion of the general requirements listed above and any special requirements listed by the department.

**Master of Business Administration.** The Master of Business Administration degree is awarded upon completion of the two-year professional program. In response to a growing demand for responsible and creative leadership in our business and industrial society, the University has developed a professional program leading to the awarding of a Master of Business Administration degree. This program is designed to serve qualified students from all areas of the University regardless of their undergraduate major. Students contemplating an M.B.A. degree are advised to take a broad program in their undergraduate work. Further information may be secured from the Graduate School Catalog, the Graduate School dean, and members of the M.B.A. faculty.

**Master of Education.** The Master of Education degree is awarded upon completion of the requirements for the Master of Science degree, with the following exceptions: (1) a satisfactory field project (course 698) may be submitted rather

than a thesis, (2) a total of 30 credit hours shall be presented in addition to the field project, and (3) one year of teaching experience is required.

The project is a study of a practical problem in the field of the candidate's interest as a teacher. The problem is selected and developed by the student, subject to the approval of his advisory committee. The finished report on the project should conform to the requirements for a thesis in matters of style, format, and manner of filing.

**Master of Religious Education.** The Master of Religious Education degree is awarded upon completion of the requirements listed above and the special requirements listed under the Department of Religious Education.

**Institute of Government Service.** The Institute of Government Service offers training leading to a master's degree for students planning careers of public service. Specialized work is given for those seeking to enter the federal, state, or local governments. Various specialties, such as budget and fiscal, method and organization, personnel, city management, public works administration and planning are offered. Training is also offered for those seeking careers in the U.S. Foreign Service, and in the administration of other programs in foreign countries.

Each student is interviewed to determine his goals, and a program which will aid him to achieve those goals is outlined. The program is of an interdepartmental nature, partaking of the best offerings of any department of the University.

For example, if a student wishes to prepare for the U.S. Foreign Service, his program is outlined to include training in political science, history, economics, and languages. A student planning a career in finance administration on the local government level would be broadly trained in municipal accounting, budget preparation and analysis, organization and management analysis, principles of public administration, economics, and government finance.

Each student is required to have adequate background preparation prior to admission to degree-seeking status which is determined by review of his completed preparation. A wide range of background preparation may qualify students for admission to the program. For example, political science, business administration, sociology, history, languages, economics, and engineering, etc., would all be acceptable. Background shortages can be made up.

Details of the program may be secured by writing to Director of Institute of Government Service, 356 McKay Building, Brigham Young University. Applications for admission should be sent to the dean of the Graduate School, Brigham Young University.

### Time Limit

Graduate credits are applicable toward the master's degree only within a six-year period from the time they are received. Students are counseled to complete their programs without notable interruption.

Students may secure at the office of the graduate dean an information form as a guide to completing all administrative procedures for graduate degrees.

### Graduate Certification

**Two-Year Certificate in Educational Administration.** The two-year certificate in educational administration is offered for the preparation of school principals and supervisors, and is awarded after completion of requirements listed under the Department of Educational Administration.

### Scholarships, Fellowships, and Assistantships

**Scholarships and Fellowships.** The University has established the following scholarships and fellowships for graduate students:

- 30 scholarships which range in value from remission of tuition and fees to \$1,800 plus tuition and fees.
- 30 fellowships which range in value from remission of tuition and fees to \$1,500 plus tuition and fees.

These scholarships and fellowships are awarded on the basis of high academic achievement and are available to students in all areas of graduate study. Recipients must possess a baccalaureate degree at the beginning of the period for which the scholarship or fellowship is granted and be a candidate for a higher degree. Applications for the academic year beginning in September should be filed by the preceding March 15. Application forms may be obtained from the dean of the Graduate School.

**Teaching and Laboratory Assistantships.** Many departments employ graduate students as teaching or laboratory assistants. Assistantships are awarded on the basis of scholastic accomplishment and competence for service. Remuneration is based on the time devoted to teaching duties. Application forms and detailed information may be obtained by writing to the chairman of the department in which the applicant wishes to become an assistant.

**Research Assistantships and Fellowships.** A substantial number of research assistantships and fellowships are available at Brigham Young University. Recipients work part time under the supervision of a faculty member on research projects which are supported by University, government, or private sources. The awards vary from about \$1,200 to about \$2,800 per school year. Students interested in appointments to research assistantships or fellowships should direct inquiries to the chairman of the major department.

### Summer Sessions

Graduate students who do a part of their work at the University during the summer will find a wide range of graduate courses suited to their purposes. The summer session is divided into two terms so that students may attend only part of the summer if they desire. Graduate students spending full time on academic work may register for a maximum of six semester hours per term depending on their previous academic record.

### Library Facilities

In relation to present size, Brigham Young University has one of the ten fastest growing university libraries in the United States. With the growth in the number of volumes an effort is being made to acquire those library tools necessary to a graduate research program. A well-trained staff is available to assist scholars in the use of the book collection, and to interpret the specialized bibliographies, catalogs, guides, and indexes.

The University library contains the general book collection including over 350,000 bound volumes, several thousand pamphlets, and an extensive collection of titles on microfilm and microcards. Over 3,000 periodicals are received regularly.

The facilities of the Genealogical and Historical Library in Salt Lake City, containing over 500,000 titles, are also available by special arrangement, as are the collections of Utah and Mormon materials in the L.D.S. Church library in the same city.

### The Graduate Catalog

For more detailed information on graduate degrees, admission to the Graduate School, departmental offerings and requirements, refer to the Graduate School Catalog.

# *List of Courses*

**Semester System.** Commencing with the autumn term, 1960, courses of study at Brigham Young University were offered on a semester basis rather than the previously offered quarter basis. This Catalog of Courses contains information and course listings based upon the semester system.

## **Course Numbering System.**

Course Number	Type of Course
1 to 99	Preparatory and remedial (noncredit)
100 to 299	Lower division
300 to 499	Upper division
500 to 599	Advanced undergraduate or graduate
600 to 799	Graduate

**Credit-Hour Designation.** The three-number code for credit hours has the following significance:

First number:	Semester hours of credit
Second number:	Class hours of lecture, recitation, or seminar meeting per week or Minimum hours of individual study required per week
Third number:	Laboratory hours required per week or Hours of field study or individual research per week

**Cross Referencing of Courses.** Each course is listed completely only once in the catalog. If the course may count in another department, it appears in a special grouping at the end of the course listing for that department.

**Interdepartmental Courses.** Interdepartmental courses are taught in agriculture, devotional assemblies, forum assemblies, humanities, and physical science. In the course listing which follows, these courses appear under the appropriate headings of agriculture, devotional assemblies, forum assemblies, humanities, and physical science rather than in a specific department.

**Graduate Courses.** For regulations governing study beyond the bachelor's degree, see the Graduate School section of this catalog and the Graduate School Catalog. Advanced undergraduate or graduate courses (500 series) may be used for graduate credit with certain limitations.

**Reservation of Right to Change Courses.** At the time of printing of this catalog, the University intends to give the courses listed herein, but reserves the right to eliminate or discontinue any of them or to add new courses.

**Professors:** Andersen, R. J. Smith.

## Accounting

**Associate Professor:** Johnson.

**Assistant Professors:** Orton (chairman, 350 JK), J. M. Smith, Western, White.

**Instructors:** Skousen, Sonderegger, Woodfield.



The Department of Accounting trains students in the use of objective measuring methods in the financial dealings of business, and attempts to develop men of high professional status in the use, analysis, interpretation, and projection of accounting data. The accountant must be aware of the dynamic changes in general business methods and goals and must develop practical methods of measuring and reporting these changes accurately and of integrating them into acceptable accounting terminology and procedures.

The training given leads to three principal areas of service: (1) the certified public accountant who serves industry and the public as an independent professional man skilled in accounting and auditing techniques; (2) skilled personnel in electronic data processing who must develop superior methods in the use of new, reliable, and communicable measures of performance which will aid in guiding the business and the economy in periods of rapid change; and (3) the controller or industrial accountant who can serve effectively in the management team, being conversant with and sensitive to the progressive innovations taking place in business. In this area the Department of Accounting provides an opportunity for students to acquire the business management perspective which will qualify them for administrative positions. In addition to these three principal areas, the accountant may engage in government service or enter the teaching profession.

**Business Mathematics.** All majors in the College of Business must complete Accounting 131 or the equivalent in mathematics as applied to business. Students will be classified on the basis of performance in the placement test in mathematics given to freshmen. Those whose scores indicate proficiency in mathematics may be permitted to go directly into Accounting 132. Satisfactory completion of Mathematics 111 will also qualify the student to go into Accounting 132. Other students will be placed in sections of Accounting 131 which meet two days per week. Those students whose scores indicate deficiency or weakness in mathematics will be placed in sections of Accounting 131 which meet three hours per week, but which carry only two hours of credit. When appropriate, students will be requested to take remedial high school algebra prior to registration for Accounting 131.

**Majors.** Majors in the Department of Accounting are required to take the courses listed below:

Business Management 340, 347, 348 .....	9 hours
Economics 111, 112, 345 .....	9 hours
Statistics 221 .....	3 hours
Accounting 131 (or equivalent), 132, 201 or 211, 202 or 212, 255, 301, 302, 312, 342 and a minimum of six additional hours	

selected from the course offerings originating in the Department of Accounting with the approval of the student's adviser. (Accounting 593, 596, and 699 may not be selected for this purpose.) No more than 3 hours of "D" grade in the required courses in accounting will be accepted toward graduation ..... 34 hours

**Minors.** Minors in the Department of Accounting should take the following courses:

Accounting 201 or 211, 202 or 212, and any additional eight or more hours from the course offerings of the Department of Accounting except 131, 132, 593, 596 and 699, which may not be selected for this purpose.

### Suggested Program for Accounting Majors

A suggested program which can be followed by accounting majors is given below. Each student will need to make modifications in this program to meet his individual problems. Courses marked with an asterisk (\*) are required for graduation by the University, college, or department.

#### Freshman Year:

	Maximum Hours	Minimum Hours
*Religion .....	4	4
*Physical education and Health 130 .....	3	3
*English (111, 112; or 115, 116) .....	6	4
*Physical science group .....	3	3
*American Heritage (History 170) .....	3	3
*Humanities and fine arts group .....	3	3
*Accounting 131, 132 (Business Mathematics) .....	4	4
*Economics 111, 112 (Social science group)* .....	6	6
Forum and devotional assemblies .....	2	2
Electives—may be used to fill groups .....	2	4
	<hr/> 36	<hr/> 36

#### Sophomore Year:

*Religion .....	4	4
*Physical education .....	1	1
*Humanities and fine arts group .....	3	3
*Physical science group .....	3	3
*Biological science group .....	6	6
*Social science group .....	3	2
*Accounting 211, 212 .....	6	6
*Accounting 255 (Basic Concepts of Data Processing) .....	2	2
B.E.O.M. 206 (Calculating and Posting Machines) .....	2	2
*Statistics 221 (Principles) .....	3	3
Forum and devotional assemblies .....	2	2
Electives .....	1	2
	<hr/> 36	<hr/> 36

#### Junior Year:

*Religion .....	4	4
*Humanities and fine arts group .....	2	2
*Accounting 301, 302 (Intermediate) .....	10	10
*Accounting 312 (Cost) .....	3	3
*Accounting 342 (Introduction to Commercial Law) .....	3	3
*Business Management 340 (Industrial Organization and Management) .....	3	3
*Business Management 347 (Marketing Management) .....	3	3
*Business Management 348 (Financial Administration) .....	3	3
*Economics 345 (Intermediate Theory) .....	3	3
Forum and devotional assemblies .....	2	2
	<hr/> 36	<hr/> 36

The above courses include most of the University general education requirements and the college core requirements, as well as the basic courses in accounting. At this point the student should determine the extent to which he desires additional accounting training. A number of alternatives are available. Four plans are given below: one for those who desire to complete their training in four years, and three alternative plans for those intending to complete a five-year professional program.

Four-year general accounting course, senior year:		Hours
*Religion .....		4
Accounting 332 (Advanced Business Mathematics) .....		2
Accounting 420 (Taxes) .....		3
Accounting 442 (Advanced Business Law) .....		3
Accounting 565 (Auditing Theory) .....		3
B.E.O.M. 320 (Report and Business Writing) .....		3
Business Management 480 or 481 (Executive Lectures) .....		1
Forum and devotional assemblies .....		2
Electives .....		15
		<hr/> 36

### Five-year programs:

#### No. 1. Controllership and Industrial Accounting

##### Senior Year:

*Religion .....	4
Accounting 332 (Advanced Business Mathematics) .....	2
Accounting 420 (Taxes) .....	3
Accounting 565 (Auditing Theory) .....	3
B.E.O.M. 320 (Report and Business Writing) .....	3
Business Management 420 (Human Relations) .....	3
Business Management 480 or 481 (Executive Lectures) .....	1
Statistics 330 (Statistical Methods Used in Business) .....	3
Forum and devotional assemblies .....	2
Electives—suggested courses are: Accounting 442; Business Management 450, 451, 521, 574; Economics 453, 461 .....	10
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##### Fifth year:

Accounting 512 (Advanced Cost) .....	2
Accounting 515 (Controllership) .....	3
Accounting 521 (Advanced Taxes) .....	2
Accounting 555 (Advanced Data Processing) .....	3
Accounting 556 (Computer Programming) .....	3
Business Management 488, 489, 589 (Business Management and Business Policy) .....	6
Economics 576 (Government and Business) .....	3
Electives .....	6
	<hr/> 28

#### No. 2. Electronic Data Processing

##### Senior Year:

*Religion .....	4
Accounting 332 (Advanced Business Mathematics) .....	2
Accounting 356 (Punched Card Accounting) .....	2
Accounting 420 (Taxes) .....	3
B.E.O.M. 320 (Report and Business Writing) .....	3
Statistics 330 (Statistical Methods Used in Business) .....	3
Business Management 480 or 481 (Executive Lectures) .....	1
Forum and devotional assemblies .....	2
Electives—suggested courses are: Accounting 442; Business Management 420; Statistics 241 .....	14
	<hr/> 34

**Fifth year:**

Accounting 555 (Advanced Data Processing) .....	3
Accounting 556 (Computer Programming) .....	3
Accounting 557 (Advanced Computer Programming) .....	2
Statistics 432, 433 .....	4
Electives—suggested courses are: Accounting 515, 575, 565; Statistics 341, 434 .....	16
	<hr/> 28

**No. 3. Professional Public Accounting****Senior Year:**

*Religion .....	4
Accounting 332 (Advanced Business Mathematics) .....	2
Accounting 420 (Taxes) .....	3
Accounting 442 (Advanced Business Law) .....	3
Accounting 512 (Advanced Cost) .....	2
Accounting 521 (Advanced Taxes) .....	2
Accounting 565, 566 (Auditing) .....	5
B.E.O.M. 320 (Report and Business Writing) .....	3
Business Management 480 or 481 (Executive Lectures) .....	1
Statistics 330 (Statistical Methods Used in Business) .....	3
Forum and devotional assemblies .....	2
Electives—suggested courses are: Accounting 596; Business Management 420; Economics 453 .....	4
	<hr/> 34

**Fifth year:**

Accounting 501, 502 (Advanced) .....	6
Accounting 555 (Advanced Data Processing) .....	3
Accounting 575 (Theory) .....	3
Accounting 586, 587 (CPA Problems) .....	8
Electives .....	8
	<hr/> 28

Students in the five-year programs may obtain a master's degree in accounting. This will require that the student be able to apply part of the credits taken in the last semester of the senior year toward the degree and/or the student will need to plan to attend school an extra summer or semester for the purpose of completing the thesis or the additional requirements under the program which provides for other work in lieu of the thesis. Any student desiring to get a master's degree should study the appropriate sections of the Graduate School Catalog.

**Lower Division Courses**

- 131. Elementary Mathematics of Business.** (2:2:0) F.S.Su. (Remedial sections meet three days per week.) Staff

Applications of mathematics to business. Includes fundamental operations; factoring; ratios, proportions and percentages; simple equations; exponents; roots and radicals; quadratic equations; functions and graphs; simple interest.

- 132. Mathematics of Business.** (2:2:0) F.S.Su. Prerequisite: Accounting 131 or equivalent.

Continuation of Accounting 131.

- 201, 202. Elementary Accounting.** (3:3:0 ea.) F.S.Su. (m) Prerequisite: Accounting 131 or equivalent. Staff

An introductory series for non-majors primarily interested in the uses of accounting in the management and control of business operations.

- 211, 212. Elementary Accounting.** (3:3:0 ea.) F.S.Su. (m) Prerequisite: Accounting 131 or equivalent. Staff  
 An introductory series for students intending to major in accounting or for those desiring to acquire basic ability in bookkeeping techniques.
- 255. Basic Concepts of Data Processing.** (2:2:1) F.S.Su. (m) Prerequisite: Accounting 201 or 211. Staff  
 An introduction to data processing systems, with emphasis on mechanical and punched card applications.

**This course also counts in accounting:**

**B.E.O.M. 206. Calculating and Posting Machines.** (2:5:0)

### Upper Division Courses

- 301, 302. Intermediate Accounting.** (5:5:0 ea.) F.S.Su. (m) Prerequisites: Accounting 202 or 212. Accounting 255 must be taken prior to 302. Staff  
 Intermediate course in accounting for general business students and for majors who need a broad foundation for specialized studies which they will take later.
- 312. Cost Accounting.** (3:3:0) F.S.Su. (m) Prerequisite: Accounting 202 or 212. Staff  
 An introduction to the principles and practices of cost accounting.
- 332. Advanced Mathematics of Business.** (3:3:0) F. (m) Prerequisite: Accounting 132 or Mathematics 111 or permission of instructor. Staff  
 Selected topics from finite mathematics, vectors and matrices, trigonometry, analytical geometry, and elementary differential and integral calculus as applied to business.
- 342. An Introduction to Commercial Law.** (3:3:0) F.S.Su. (m) Staff  
 Survey of modern American business law as it applies to everyday business practices.
- 356. Punched Card Accounting.** (2:2:1) S. (m) Prerequisite: Accounting 255. Staff  
 Continuation of Accounting 255, stressing advanced accounting machine operations and systems design.
- 420. Federal and State Taxes.** (3:3:0) F.S.Su. (m) Prerequisites: Accounting 202 or 212 and preferably Accounting 301 or Business Management 303. Staff  
 Federal and state tax legislation and regulations with emphasis on individual income tax.
- 442. Advanced Business Law.** (3:3:0) S. (m) Prerequisite: Accounting 342. Staff  
 Business law for accountants and business men, with emphasis on laws covered in professional accounting examinations.

**These courses also count in accounting:**

**B.E.O.M. 320. Report and Business Writing.** (3:3:0)

**B.E.O.M. 488, 489. Problems in Business Management.** (1:1:0), (2:2:0)

### Advanced Undergraduate or Graduate Courses

- 501. Advanced Accounting.** (3:3:0) F. (1962) Su. (1963) S. (1964) (m) Prerequisite: Accounting 302. Staff  
 Includes joint ventures, consignments, installments, receiverships, estates and trusts, statement of affairs, and municipal and governmental accounting.
- 502. Advanced Accounting.** (3:3:0) S. (1963) F. (1963) Su. (1964) (m) Prerequisite: Accounting 302. Staff  
 Home office and branch accounts, and parent and subsidiary accounting.
- 512. Advanced Cost Accounting.** (2:2:0) S. (1963) F. (1963) Su. (1964) (m) Prerequisite: Accounting 312. Staff  
 Budgeting, standard costs, and cost analysis.

- 515. Controllership.** (3:3:0) F. (1962) Su. (1963) S. (1964) (m) Prerequisites: Accounting 302 and 512. Staff  
 Organization of the controller's office, control techniques, interpretation of financial data, and policy formulation.
- 521. Advanced Tax Problems.** (2:2:0) F. (1962) Su. (1963) S. (1964) (m) Prerequisite: Accounting 420. Staff  
 Advanced study of federal income tax, estate and gift taxes, and special problems in corporate taxation.
- 555. Advanced Data Processing.** (3:3:0) F. (m) Prerequisite: Accounting 255. Staff  
 Principles governing design and installation of accounting systems and the selection of equipment for optimum performance in data processing cycles.
- 556. Electronic Computer Programming.** (3:3:1) F.S. (m) Prerequisites: Accounting 132 and Statistics 221; recommended: Accounting 255. Staff  
 Basic computer logic, binary notation, operational coding, flow charting, iterative routines, subroutines, library programs, optimum coding, symbolic coding, and data processing application.
- 557. Advanced Computer Programming.** (2:1:2) S. (m) Prerequisite: Accounting 556. Staff  
 Emphasis on the solution of practical problems in data processing. Individual work on the University's computer and comparison of various computers in current use.
- 565. Auditing Theory and Professional Ethics.** (3:3:0) F.S.Su. (m) Prerequisite: Accounting 302. Staff  
 Principles and methods of public accounting, professional responsibility and conduct, and verification techniques of accounts and financial statements.
- 566. Auditing Practice.** (2:2:0) F.S. (m) Prerequisites: Accounting 302, and completion of or concurrent registration in Accounting 565. Staff  
 Practice in auditing techniques, including report writing and filings with regulatory bodies.
- 575. Theory of Accounts and Statements.** (3:3:0) S. (1963) F. (1963) Su. (1964) (m) Prerequisite: Accounting 202 or 212. Staff  
 A brief study of the history and development of accounting and financial statements, their meaning and interpretation. Problems in current accounting theory are considered.
- 586, 587. C.P.A. Problems.** (4:3:1 ea.) F.S. (m) Prerequisites: Accounting 302, 420, and completion of or concurrent registration in Accounting 501, 502, 565. Staff  
 Preparation for professional examination.
- 593. Reading and Conference.** (1-3:1-3:0) F.S.Su. Staff  
 Subject to be arranged with instructor.
- 596. Accounting Internship.** (1-3:0:Arr.) F.S.Su. Recommended: Accounting 565. Staff  
 Internship must be arranged in advance with department and company.
- This course also counts in accounting:**  
**Business Management 589. Business Policy.** (3:3:0)

#### Graduate Course

- 699. Thesis for Master's Degree.** (1-6:0:0) F.S.Su. Staff  
 This course number should also be used for non-credit continuing registration for students working on theses.

**Professor:** Nelson.

**Associate**

**Professors:** Corbridge (chairman, 370 HJG),  
Gardner.

## Agricultural Economics



The Department of Agricultural Economics emphasizes the business and economic aspects of agriculture. A wide range of electives permits a student in this department to choose course work from many different areas. The student should work with advisers from the department to adapt his study program to his particular interests and needs.

Twenty-four hours, including Agricultural Economics 101, 325, 410, Economics 111, and Statistics 221 are required for a major in agricultural economics.

A student is encouraged to concentrate on one of the following three options: (1) basic agriculture, for those returning to the farm and primarily interested in production courses; (2) pre-professional, for those planning graduate study; or (3) agri-business, for those principally interested in the business aspects of farming or in seeking employment in related business areas.

**Basic Agriculture Option.** A student electing this option is advised to consider:

Agricultural Economics 101, 320, 325, 350, 360, 410, 425, 525, 580.  
Agronomy 141, 251, and/or 302, 305, 451, 455, 457.  
Animal Husbandry 153, 170, 207 and/or 161, 335, 507.  
Horticulture 101 and/or 103, 310.  
Industrial Arts—classes as needed.  
Economics 111.  
Statistics 221.

**Pre-professional Option.** A student anticipating graduate training is advised to obtain a good background in mathematics, statistics, and economic theory.

The following classes should be included:

Agricultural Economics 101, 325, 410, 525.  
Economics 111, 345 and/or 346.  
Mathematics 101, Accounting 132 and 332; or Mathematics 111 and Accounting 332; or Mathematics 111 and 112.  
Statistics 221, 331 and/or 531.

Additional classes are recommended from among the following:

Agricultural Economics 320, 350, 360, 425, 490, 580, 590.  
Agronomy 141 and/or 251.  
Animal Husbandry 207 and/or 215.  
Economics 586, 587.  
Horticulture 101 and/or 103, 310.  
Statistics 531.

Agricultural Economics 101, 325, 410 and one or more of 320, 350, 360, 425, 490, 525, 580, 590.  
Agronomy 141 and/or 251.  
Animal Husbandry 207 and/or 215.  
Horticulture 101 and/or 103, 310.  
Accounting 201.  
Business Management 315, 348, 420, 451, 457, 555, 557, 567, 569, 579, 589.  
Economics 111, 346.  
Geography 231.  
Statistics 221, 331 and/or 531.  
B.E.O.M. 220 and/or 320.

[illegible]

Junior Year	F	S	F	S	F	S
Religion .....	2	2	2	2	2	2
Ag. Econ. 325 .....	4		4		4	
Agriculture 391 .....	1		1		1	
Ag. Econ. 410 .....		4		4		4
Statistics 431 .....			3		3*	
Economics 345 .....				3		3
Ag. Econ. 320 .....	2		2		2	
Ag. Econ. 360 .....		2				2*
Accounting 342 .....						3*
Accounting 332 .....			3		3*	
Devotional assembly .....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Forum assembly .....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Physical sciences .....		3		3		3
Humanities and fine arts ..	2		2		2	
Electives .....	6	6		5	2	
Total Hours .....	18	18	18	18	17	18
Senior Year	F	S	F	S	F	S
Religion .....	2	2	2	2	2	2
Ag. Econ. 425 .....		3		3*		3
Ag. Econ. 490, 590 .....	1	1	1	1	1	1
Ag. Econ. 525 .....				2		
Ag. Econ. 580 .....		2*		2		2
Economics 453, 486 .....				3	3	
Devotional assembly .....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Forum assembly .....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Electives .....	14	9	14	4	11	9
Total Hours .....	18	18	18	18	18	18

\*optional

## Lower Division Course

## 101. Economics and Agriculture. (3:3:0) F.S. Home Study also. (G-SSm)

Corbridge, Nelson

Basic general education course in economics with special reference to the agricultural sector of the economy.

The following courses are acceptable in meeting the requirements for the major:

Economics 111, 112. Economic Principles and Problems. (3:3:0) (2:2:0)

Math 112. Analytical Geometry and Calculus. (5:5:0)

Statistics 221. Principles of Statistics. (2:2:0)

Accounting 210. Elementary Accounting. (5:5:0)

## Upper Division Courses

## 320. Agricultural Business Organizations and Principles of Management. (2:2:0)

F. (m) Prerequisite: Ag. Econ. 101.

Corbridge

Organizational structure, problems and relative importance of the types of business units with which agriculture is concerned, and planning the organization and operation of the business.

## 325. Farm and Ranch Management. (4:3:3) F.S. (m) Prerequisite: Ag. Econ. 101.

Corbridge

Principles of farm management, including basic economic principles of optimum resource combination, farm records useful for income tax and farm management purposes, and budgeting procedures in developing most profitable farm management plans.

350. **Land and Range Economics.** (3:3:0) F. (m) Nelson  
Analysis of economic problems relating to land use, evaluation, conservation, ownership, and land management.
360. **Law and the Farmer.** (2:2:0) S. Home Study also. (m) Staff  
A general study of the law of contracts, real and personal property, taxes, water, and estate planning, with specific applications to the problems of agriculture.
410. **Agricultural Marketing.** (4:4:0) F.S. (m) Nelson  
Economic principles and their application to the marketing of major agricultural products.
425. **Farm Appraisal and Finance.** (3:3:0) S. (m) Corbridge  
Training in farm appraisal for purposes of purchase, finance, and taxing. An evaluation of the principal sources of farm finance.
490. **Seminar.** (1:1:0) F. (m) Staff

The following courses are acceptable in meeting the requirements for the major:

- Accounting 332. **Advanced Mathematics of Business.** (3:5:0)  
Agriculture 391. **Junior Seminar.** (1:1:0)  
Economics 345, 346. **Intermediate Economic Analysis.** (3:3:0 ea.)  
Statistics 331. **Statistical Methods Used in Sciences.** (3:3:0)

#### Advanced Undergraduate or Graduate Courses

525. **Production Economics.** (2:2:0) S. (m) Prerequisite: Economics 111.  
Gardner  
Principles concerning the optimum combination of productive resources within the farm firm and between firms.
580. **Agricultural Policy.** (2:2:0) F. (m) Gardner  
The theoretical and institutional setting of the agricultural industry, the objectives of farm policy, and the means of achieving these objectives. Includes a study of existing and proposed farm legislation.
590. **Seminar.** (1:1:0) S. (m) Staff
595. **Individual Readings.** (1-3:Arr.:Arr.) F.S. Staff
597. **Individual Research.** (1-3:Arr.:Arr.) Staff

The following courses are acceptable in meeting the requirements for the major:

- Economics 586. **Theory of Price.** (3:3:0)  
Statistics 531. **Experimental Design.** (2:2:0)

**Professor:** Walker (in charge, 106 HGB).

## Agriculture



(An interdepartmental area only)

- 101. The Agricultural Industry.** (1:1:0) F. Walker  
The agricultural industry in the United States and other countries. Career opportunities and the role of education, research, and extension in agricultural development. Required of all agricultural students.
- 391. Junior Seminar.** (1:1:0) F. Walker
- 401. Extension Work in Agriculture.** (3:3:0) S. Walker  
Extension work in agriculture, its development, objectives, organization, programing, leadership development, and methods of instruction with adults and boys and girls.

# Agronomy

**Professors:** Farnsworth (chairman, 173 B),  
Hallam, Laws, Walker.

**Associate  
Professors:** Allred, Ashton.



The purpose of the Department of Agronomy is to teach students, within the framework of the objectives of the University, the fundamental principles of soil science, field crop production and their interrelationships. Graduates may prepare to pursue the following activities: (1) practical scientific farming, (2) graduate study toward the M.S. or Ph.D. degrees, (3) government civil service, (4) commercial agriculture, and (5) agricultural education.

A minimum of twenty hours is required for a major in this department. Not more than five hours of "D" credit may be counted toward this requirement. A minimum of fourteen credit hours in a related field is required for a minor. The minor selected must have the approval of the department chairman.

A minimum of one year of chemistry is required of all students majoring in agronomy, and students planning to pursue activities other than practical scientific farming should plan on more than one year of chemistry. Transfer students majoring in this department, in addition to the above, are required to have at least fourteen credit hours in agronomy from Brigham Young University. Transfer students who minor in this department must earn a minimum of seven hours in agronomy at Brigham Young University.

## Course of Study for Freshman and Sophomore Years

A student may begin his preparation by selecting either Option A or Option B.

Students electing Option A may qualify for graduate study, government civil service, and commercial agriculture.

Students choosing Option B may qualify for less technical positions in government civil service and in commercial agriculture, or for agricultural education or practical scientific farming.

### Option A

Freshman Year			Sophomore Year		
	F	S		F	S
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Religion .....	2	2	Religion .....	2	2
Health 130 .....		2	Chemistry 112, 113 .....	3	3
English 111, 112 .....	3	3	Math 213, 214 .....	5	5
Math 101 or 111,112 ....	4	5	Agronomy 141 .....	3	
Botany 101 .....	3		Ag. Econ. 101 .....	3	
Chemistry 111 .....		4	History .....		3
Agronomy 251 .....	4		Bacteriology 121 .....		3
Agriculture 101 .....	1				
Total hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$	Total hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$

## Option B

Freshman Year			Sophomore Year		
	F	S		F	S
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Religion 131, 132 .....	2	2	Religion .....	2	2
English 111, 112 .....	3	3	History 170 .....	3	
Health 130 .....		2	Chemistry 102 .....	4	
Math 101 .....	3		Agronomy 141 .....	3	
Botany 101 .....	3		Horticulture 101 or 103 .....	3	
Agronomy 251 .....	4		Dramatic Arts 121 .....	3	
Chemistry 101 .....		4	Geography 231 .....		3
Agriculture 101 .....	1		Statistics 221 .....		2
Ag. Econ. 101 .....		3	Bacteriology 121 .....		3
One of the following:			Animal Husbandry		
Animal Husbandry			153 or 207 .....		3
153, 207, Horticulture			Literature .....		3
101, 103 .....		3	Electives .....		0-2
Total hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$	Total hours .....	18 $\frac{1}{2}$	16 $\frac{1}{2}$ -18 $\frac{1}{2}$

Students planning for a graduate program (which greatly enhances opportunity for employment) should minor in mathematics, chemistry, physics, or botany.

Students primarily interested in government civil service, commercial agriculture, or agricultural education may minor in agricultural economics, animal husbandry, botany, or chemistry.

Students with an opportunity to return to the farm may minor in agricultural economics, animal husbandry, botany, horticulture, or industrial education.

## Lower Division Courses

141. **General Soils.** (3:2:3) F.S. (m) Recommended: high school chemistry or one semester of college chemistry. Farnsworth, Hallam  
An introductory course dealing with the physical, chemical, and microbiological properties of soils.
251. **Principles of Field Crop Production.** (4:3:2) F.S. (m) Allred  
Crop production principles, soil-plant relationships, classification and distribution of farm crops, corn and small grain improvement, tillage, and crop rotations.

## Upper Division Courses

302. **Irrigation and Drainage.** (3:2:3) S. (m) Prerequisites: Agronomy 111, Math 111. Farnsworth  
Proper use of irrigation water; irrigation water supply; water measurements; drainage in relation to the irrigation practices; drainage and alkali; drainage systems.
303. **Soil Genesis, Classification, and Survey.** (2:2:2) S. (m) Prerequisite: Agronomy 141; recommended: Geology 111. Farnsworth  
Influence of geologic forces and climatic environment on soil development; classification of soils based upon soil profile characteristics. Methods of soil survey are emphasized.
305. **Soil Fertility.** (3:2:3) F. (m) Prerequisites: Agronomy 141, Chemistry 101 or 111. Hallam  
Principles of soil fertility, soil alkali, soil chemical analysis or soil testing, commercial fertilizers, farm manures, green manures, crop rotations.
308. **Soil and Water Conservation.** (2:2:0) F. (m) Farnsworth  
History and status of soil erosion and soil fertility; effect of climatic factors, soil characteristics, vegetation, land management, and farm operations

on soil and water conservation and on the maintenance of soil fertility and productivity.

311. **Soil Physics.** (3:2:3) F. (m) Prerequisites: Agronomy 141, Chemistry 111, and Math 101 or 111; recommended: Physics 211, 212, 213; Chemistry 112, 113, and 220 or 221. Laws  
Physical composition of soils—sand, silt, clay, and organic matter—and their effects upon the air, water, and temperature relationships in the soil.
314. **Soil Microbiology.** (3:2:3) F. (m) Prerequisite: Bacteriology 121. Hallam  
Designed to acquaint the student with bacteria in relation to soil fertility; the activity and types of organisms in the rhizosphere; the biological processes in the soil.
440. **Forage Crops.** (3:2:2) F. (m) Recommended: Agronomy 251. Allred  
Distribution, characteristics, identification, and establishments of all major forages adapted to grasslands of the U.S.
451. **Principles of Weed Control.** (3:3:2) S. (m) Recommended: Agronomy 141, 251. Allred  
Cultural, chemical, and biological methods of weed control.
453. **Advanced Field Crops and Seed Production.** (3:3:0) F. (m) Prerequisites: Agronomy 141, 251. Allred  
Problems involved in seed crop production; seed certification of small grains and forages; curing, storing, cleaning, and distribution of seed.
455. **Pasture Management.** (2:2:0) S. (m) Prerequisites: Agronomy 141, 440. Laws  
Analysis of the conditions of pastures in the intermountain region, need for improvement, factors involved in improvement; principles and practices of management required to provide maximum production for dairy, beef, sheep, hogs, and poultry.
457. **Ecology of Weeds and Crops.** (2:2:0) Su. (m) Allred  
Field study of important grasses, legumes, other agronomic crops, and weeds; adaptation to soil, moisture, light, and other environmental conditions; growth characteristics, utilization, and control.
459. **Plant Breeding.** (2:2:0) F. (m) Prerequisites: Botany 101, Zoology 176. Ashton  
Methods of hybridizing and selection in relation to plant improvements.
491. **Seminar.** (1:1:0) F.S.Su. (m) Staff  
Current agronomic literature, agricultural problems. Two semesters required of all senior students majoring in agronomy.
495. **Field Projects.** (2-3:0:4-6) F.S.Su. Staff  
Supervised field research or practical field problems. Required of all agronomy majors.
497. **Research.** (1-2:1-2:0) F.S. Staff  
Seniors specializing in agronomy elect research work from one to three hours during the senior year.
498. **Agricultural Literature.** (1-2:1-2:0) F.S.Su. Staff

#### Advanced Undergraduate or Graduate Courses

503. **Soil Chemistry.** (2:2:0) S. Prerequisite: Chemistry 221. Hallam  
A physico-chemical study of soil colloids.
506. **Soil and Plant Analysis.** (3:1:6) S. Prerequisites: Agronomy 305, Chemistry 220 or 221. Farnsworth  
Laboratory chemical analysis of soils and plant materials; use of radioactive materials in soil fertility research; use, care, and measurement of radioactive materials.

**Graduate Courses**

605. Chemistry of Soil-Plant Relationships. (3:3:0) F.	Laws
607. Soil Physical Conditions. (3:2:3) S.	Laws
614. Advanced Soil Microbiology. (3:2:3) S. Prerequisites: Agronomy 305, Bacteriology 121, Chemistry 221.	Hallam
659. Advanced Plant Breeding. (2:2:0) F.	Allred
694. Seminar. (1:1:0) F.S.Su.	Staff
697. Research. (Arr.) F.S.Su.	Staff
698. Agricultural Literature. (Arr.) F.S.Su.	Staff
699. Thesis for Master's Degree. (1-6:Arr.:Arr.) F.S.Su.	Staff

## Air Science

**Professor:** Lt. Colonel Gibson (chairman, 140 HC).

**Assistant Professors:** Lt. Colonel McCulloch, Major Canfield, Major Nix, Captain Reasor.

**Instructors:** T/Sgt. Boman, T/Sgt. Nickell, S/Sgt. Hall, A/1c Burton.



**General Information.** AFROTC is voluntary at B.Y.U.; the cadet assumes no obligation until his junior year. The program trains him to function as a junior executive. The cadet specializes in the major field of his choice where he learns principles and techniques of leadership and management in preparation for service as a commissioned officer in the Air Force and as a leader in civic and community affairs. Eighty per cent of our Air Force officers are AFROTC graduates.

**Eligibility.** The beginning student must be a citizen of the United States and able to graduate from the program and the University by his 28th birthday. Physical and academic standards for the basic course (freshman and sophomore) are the same as those of the University. To qualify for the advanced program the cadet must pass a mental and physical examination during the sophomore year. On approval of the University president he executes an agreement to complete the last two years of AFROTC, attend four weeks summer training, and serve a tour of active duty with the Air Force upon graduation.

**Enrollment.** AFROTC should be completed at the time of or shortly before graduation. Therefore, a student may normally enroll in AFROTC only during his first or second semesters at B.Y.U. Exceptions are made for veterans, transfer students, and certain other students. Students with enrollment problems should consult the department chairman.

**Minor in Air Science.** An academic minor in air science has been approved. Students desiring air science as a minor must complete the AFROTC requirements and qualify for a commission in the United States Air Force. See the department chairman for detailed information.

**Text Books, Uniforms, and Allowance.** All items of the Air Force uniform and AFROTC text books are issued free of charge. During the last two years of AFROTC each cadet receives from the Air Force a monetary allowance of 90 cents per day or about \$525 for these two years.

**Summer Training.** The four-week summer training course is a supplement to the academic program. It develops in the cadet a better understanding of the Air Force mission and its operation. He receives additional practical experience in leadership in realistic situations on an Air Force base. The course emphasizes flying for those physically qualified. Each cadet receives medical care, food, and clothing while attending the course, and is paid \$75.00 in addition to travel pay to and from the base.

**Flight Instruction Program.** A flight instruction program is conducted at the Provo Airport by an accredited flying school. Senior cadets who qualify for

pilot training are eligible to participate. Thirty-six and one-half hours of flying instruction are given, qualifying the student for a private pilot's license. Ground school instruction in navigation, weather, flight rules, and other subjects are given by USAF flying officers of the Department of Air Science.

**Orientation Flights.** A series of orientation flights in Air Force aircraft is scheduled each year. Each cadet will have the opportunity of visiting Air Force bases and aircraft assembly plants. These flights, as well as those flights in jet aircraft at the summer training course, are flown by experienced Air Force pilots.

**Extracurricular Activities.** Each AFROTC cadet will be able to extend his academic and laboratory associations into many extracurricular activities. Among these are participation in the Arnold Air Society, drill teams, the AFROTC Chorus, the AFROTC Band, rifle teams, and the annual Military Ball for all cadets. Cadet associations and friendships formed during this period continue long after college.

**L.D.S. Missions.** Students called on L.D.S. missions will be released from the AFROTC program. Special arrangements have been made with the Air Force to accept each back into the program if he meets the conditions in force at the time of return.

**Period of Non-Attendance.** Students enrolling in AFROTC who are in a five-year program are allowed a year of non-attendance between the basic and advanced courses. During this period cadets remain deferred from the draft. They must, however, participate in leadership laboratory.

**The Draft.** Students enrolled in the AFROTC program may be deferred from the draft after they have completed one semester of air science.

**Discipline.** AFROTC cadets are civilians and are not subject to military law. Disciplinary training in the Cadet Corps is formulated and administered by the cadets themselves. Cadets are subject to the rules and regulations of the Department of Air Science and of the University. Violation of rules may mean discharge from the AFROTC program, but will not necessarily result in a student having to leave school.

**Veterans.** One of the reasons the University sought the AFROTC program was to offer students, including veterans, an opportunity to improve their status in the military reserve. A veteran seeking a commission through AFROTC may have that part of the basic program waived (maximum of both freshman and sophomore years) which corresponds with the academic credit on his record. He should have at least four semesters remaining prior to graduation, which must be before his 28th birthday. Active service after graduation is voluntary. Interested veterans should consult the professor of air science. Allowances are paid in addition to GI Bill benefits.

**Course Fee Deposit.** A \$14.00 deposit is required of the student at the beginning of each school year. The purpose of this fee is to protect the government and the University from loss of textbooks and uniforms. A course fee covering insurance and activity fund is withheld from this deposit. At the end of each school year approximately \$7.00 is returned to the student, providing there has been no loss of uniform or books.

### The Program

The AFROTC program is normally a four-year program designed to fit into the regular academic schedule of the University. It consists of summer training, leadership laboratory, and academic classes.

Leadership laboratory is required of each student during his eight semesters of enrollment in the program. This is a regular part of the curriculum whether enrolled directly in academic courses of the department or in approved alternate courses in other departments.

The academic program consists of some classes given by this department and some alternates given by other departments with the approval of the professor of air science. All academic work counts toward graduation requirements.

The following courses have been selected to allow the cadet a choice of alternates. He will take one the second semester of the freshman year and one the first semester of the sophomore year. Note that they fill both AFROTC requirements for two semesters and a portion of the General Education requirements. Other courses will be approved on an individual basis for honor students, engineering majors, and cadets unable to schedule one of these: Economics 101; Geography 120, 231; History 111, 121; Journalism 101; Physics 100, 127, 128, 137; Political Science 110, and 112.

The following program is recommended for the four-year student. Others should consult the department chairman.

Freshman Year		
	F	S
Air Science 110, 111 ....	$\frac{1}{2}$	$\frac{1}{2}$
Air Science 101 .....	2	
Alternate course .....		2
Regular program .....	14 $\frac{1}{2}$ -15 $\frac{1}{2}$	14 $\frac{1}{2}$ -16 $\frac{1}{2}$
Total Hours .....	17-18	17-19

Junior Year		
	F	S
Air Science 330, 331 ....	$\frac{1}{2}$	$\frac{1}{2}$
Air Science 301, 302 .....	4	4
Regular program .....	12 $\frac{1}{2}$ -14 $\frac{1}{2}$	12 $\frac{1}{2}$ -14 $\frac{1}{2}$
Total Hours .....	17-19	17-19

Sophomore Year		
	F	S
Air Science 220, 221 ....	$\frac{1}{2}$	$\frac{1}{2}$
Air Science 201 .....		2
Alternate course .....	2	
Regular program .....	13 $\frac{1}{2}$ -16 $\frac{1}{2}$	15 $\frac{1}{2}$ -16 $\frac{1}{2}$
Total Hours .....	17-19	17-19

Senior Year		
	F	S
Air Science 440, 441 ....	$\frac{1}{2}$	$\frac{1}{2}$
Air Science 401, 402 ....	1	1
Political Science 115 ....	3	
Geography 441 .....		3
Regular program .....	12 $\frac{1}{2}$ -14 $\frac{1}{2}$	12 $\frac{1}{2}$ -14 $\frac{1}{2}$
Total Hours .....	17-19	17-19

#### Lower Division Courses

- 101. (Air Science 1). Foundations of Air Power 1. (2:2:0) F.** Staff  
 Freshman year: A general survey of the elements and potentials of air power, evolution of aerial warfare, air vehicles and principles of flight, propulsion systems, and the military arm of the government.
- 110, 111. Leadership Laboratory—Freshmen. ( $\frac{1}{2}$ :0:2 ea.) F.S.** Staff  
 A practical learning situation in which the student learns and develops the basic fundamentals of military drill, self-discipline, military courtesy, military organization, and the various skills required at increasing levels of responsibility. The Cadet Corps provides the medium for progression from small unit leadership to command, instruction, planning, and management of men.
- 201. (Air Science 2). Foundations of Air Power 2. (2:2:0) S.** McCulloch  
 Sophomore year: A survey of the concepts of employment of forces and elements of aerial warfare, including aircraft and missiles, space operations, and the impact of changing weapons systems. Included is an examination of professional opportunities in the USAF.
- 220, 221. Leadership Laboratory—Sophomores. ( $\frac{1}{2}$ :0:2 ea.) F.S.** Staff

#### Upper Division Courses

- 301. (Air Science 3). Air Force Officer Development. (4:4:0) F.** Reasor  
 Junior year: Knowledge and skills required of a junior officer in the Air Force. Includes staff organization and functions, communicating, instructing, and techniques of problem solving.
- 302. (Air Science 3). Air Force Officer Development. (4:4:0) S.** Reasor  
 Junior year: Principles and practices of leadership. Includes basic psychology of leadership, the military justice system, and application of problem solving techniques and leadership theory to simulated and real Air Force problems.

- 330, 331. Leadership Laboratory—Juniors. ( $\frac{1}{2}$ :0:2 ea.) F.S. Staff
401. (Air Science 4). Weather and Navigation. (1:2:0) F. Staff  
Senior year: A study of weather and navigational aspects of airmanship and maps and charts.
402. (Air Science 4). The Air Force Officer. (1:1:0) S. Gibson  
Senior year: A study of materials to help the cadet make a rapid, effective adjustment to active duty as an officer of the United States Air Force.
- 440, 441. Leadership Laboratory—Seniors. ( $\frac{1}{2}$ :0:2 ea.) F.S. Staff

#### Additional Courses Required for AFROTC\*

- Political Science 115. (Air Science 4). International Relations. (3:3:0) F. Staff  
Senior year: A study of major factors underlying international tensions. Political Science 370 is also acceptable to satisfy this requirement.
- Geography 441. (Air Science 4). World Political Geography. (3:3:0) S. Staff  
Senior year: A study of political geography, factors of power, and the geographic influences upon political problems with a geopolitical analysis of the strategic area.

\*These courses are authorized substitutions for courses formerly taught by the Department of Air Science. They contain the same subject material and must be completed prior to graduation from AFROTC. They should be completed in the order indicated during the appropriate Air Science 4 semester. These courses are also acceptable for general education requirements in the social science group.

## Animal Husbandry



**Professors:** Morris (chairman, 280 HJG), Cannon.

**Associate Professors:** Richards, Shumway.

**Assistant Professor:** Hoopes.

**Instructors:** Mikkelsen\*, Pace.

The Department of Animal Husbandry offers training for the following activities: (1) practical livestock farming and operation, (2) livestock herd managers, (3) commercial and government agricultural positions, (4) pre-veterinary preparation, (5) preparation for study toward the M.S. and Ph.D. degrees, and (6) agricultural teaching when the program is planned in that direction.

A student may specialize in one of three areas of the animal sciences or in a combination of all three. He may specialize in the study of meat animals (beef, sheep, and swine), dairy husbandry, or poultry husbandry; but all majors must take the following courses in animal husbandry: 153, 207, 311, 391, and 592. The student may select the remainder of his major from the courses of his choice in the animal science field. A minimum of twenty-six hours is required for an animal husbandry major.

Animal husbandry majors are encouraged to take more than the required number of hours needed for graduation in both the physical and biological sciences. (See "General Education Program" in the Student Academic Services section of this catalog.)

Animal husbandry students are required to take one or more courses from each of the following areas:

Agricultural Economics 101, 325, 410.  
Agronomy 141, 251.  
Horticulture 101, 103, 310.

Students planning to return to the farm or to do professional agricultural work should fill elective courses from the following areas depending on specific interests and needs (courses shown are merely suggested):

Accounting 201.  
Ag. Econ. 101, 325, 360, 410, 425.  
Bacteriology 121, 371.  
Botany 101, 441, 450, 462, 465.  
Business Management 315, 420.  
B.E.O.M. 220.  
Chemistry 101, 102, 284.  
Industrial Education 103, 120, 125, 285, 308, 341, 482.  
Journalism 211, 571.  
Speech 101 or 102, 121.

Requirements for those students preparing for a pre-veterinary program are listed under the College of Biological and Agricultural Sciences in this catalog.

Students planning to do graduate work should elect from the following courses:

Statistics 221, 431, 531.  
 Bacteriology 121, 331, 371, 501.  
 Botany 101, 376, 501.  
 Chemistry 111, 112, 113, 220, 221, 351, 352, 581, 582.  
 Mathematics 111, 112.  
 Zoology 212, 213, 365, 370, 373, 376, 417.

The schedule shown below is a suggested outline for animal husbandry majors.

Freshman Year			Sophomore Year		
	F	S		F	S
English 111, 112 .....	3	3	Religion .....	2	2
Religion .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Animal Husbandry		
Animal Husbandry			161 or 170 .....	4 or 3	
153, 207 .....	3	3	Animal Husbandry		
Botany 101 .....	3		120, 208 .....		5
Agronomy 251 .....		4	Zoology 105 or 212 .....	3 or 4	
Ag. Econ. 101 .....	3		Agronomy 141 .....		3
Math 101 .....		3	Chemistry 101, 102 .....	5	5
Horticulture 101 or 103..	3		Journalism 211 .....	2	
Health 130 .....		2	Speech 102 .....		3
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	15 $\frac{1}{2}$ -17 $\frac{1}{2}$	18 $\frac{1}{2}$

#### Lower Division Courses

- 102x. History of Breeds of Livestock.** (3) Home Study only. Richards  
 Not to apply on major.
- 120. Livestock Judging and Selection.** (3:2:4) S. (m) Shumway  
 Animal types and their relation to the functions of animals.
- 153. Fundamentals of Animal Breeding.** (3:3:0) F. (m) Richards  
 Principles involved in breeding animals, including physiology of reproduction, heredity and variation, and selection and systems of breeding.
- 161. Elements of Dairying.** (4:3:3) F. Home Study also. (m) Richards  
 General principles of breeding, feeding, and management of dairy cattle.
- 162, 163. Dairy Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Prerequisite: completion of or concurrent registration in Animal Husbandry 161. Richards  
 Each student is required to feed, care, manage, and milk his own cows at the University laboratory area. Feeding, sanitation, and management are stressed.
- 170. General Poultry.** (3:2:2) S. Home Study also. (m) Morris  
 A general course dealing with problems of feeding, housing, and management.
- 171. Poultry Practices.** (1-2:0:Arr.) F.S. (m) Prerequisite: Animal Husbandry 170. Morris  
 Project and laboratory experience in raising broilers and young stock.
- 207. Feeds and Feeding.** (3:3:0) F.S. Home Study also. (m) Shumway  
 Principles of nutrition and their application to all types of livestock.
- 208. Fitting and Showing Livestock.** (2:0:6) S. (m) Richards  
 Demonstrations and discussions involving preparation of each type of

livestock for show. Each student is assigned animals to fit and show at one of the spring shows and the campus livestock show.

This course also counts in animal husbandry:

Statistics 221. Principles of Statistics. (2:2:0)

### Upper Division Courses

311. **Animal Physiology and Anatomy.** (4:3:2) F. (m) Prerequisite: Zoology 105, or equivalent. Hoopes  
Applied study of the construction and functions of the animal body by systems.
312. **Animal Hygiene.** (4:3:3) S. (m) Prerequisite: Animal Husbandry 311; recommended: Bacteriology 121. Hoopes  
Principles of animal sanitation in relation to disease prevention, with emphasis on the stockmen's approach to animal disease control.
325. **Meats and Meat Preparation.** (3:0:6) F.S. (m) Home Study also. Hoopes  
Care of the meat from slaughter to packaging, inspection of slaughtering and meat plants, processing, meat judging, and selection.
330. **Horse Husbandry.** (2:1:3) S. (m) Hoopes  
A brief study of breeds of horses, with emphasis on feeding, management, and selection.
335. **Beef Production.** (3:2:2) F. (m) Home Study also. Prerequisite: Animal Husbandry 207. Shumway  
Problems of breeding, feeding, and management of range cattle, feeder cattle, and purebreds.
- 337, 338. **Beef Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Shumway  
Each student is required to feed, manage, and care for a designated number of beef animals.
340. **Sheep Production.** (2:0:4) S. (m) Shumway  
Feeding, care, and management of farm and range sheep.
341. **Sheep Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Shumway  
Each student is required to feed, manage, and care for a designated number of sheep.
345. **Swine Production.** (2:0:4) S. (m) Home Study also. Prerequisites: Animal Husbandry 153, 207. Shumway  
Breeding, feeding, and management of swine on western farms.
346. **Swine Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Shumway  
Practices in the care, feeding, and management of growing and fattening swine.
- 365, 366. **Milk and Milk Processing.** (3:2:2) F.S.Su. (m) Hoskisson  
Modern methods of producing, grading, and processing dairy products.
370. **Poultry Management.** (3:2:2) F. (m) Morris  
Management and business phases of poultry production. Problems involved in managing laying flocks, broilers, and replacement pullets.
373. **Poultry Diseases.** (3:2:2) F. (m) Hoopes  
A general treatise of poultry diseases, their control and treatment.
378. **Turkey Management.** (2:0:4) S. (m) Morris  
Principles, practices, and problems of turkey production, including brooding, feeding, growing, and marketing.
420. **Advanced Judging.** (2:0:6) F. (m) Prerequisite: Animal Husbandry 120. Shumway  
Advanced work in livestock judging. The judging team is selected from this class.

421. **Special Problems in Meat Animal Selection.** (1:0:3) F. (m) Shumway
- 436, 437. **Advanced Beef Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Shumway  
Deals primarily with care and management of the beef breeding herd.
- 446, 447. **Advanced Swine Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Shumway  
Care and management of the brood sow prior to, during, and the six to eight weeks following farrowing.
- 460, 461, 462. **Dairy Plant Management and Operation.** (2:0:6) F.S.Su.  
Practical experience in dairy manufacturing and plant operation.
463. **Artificial Insemination.** (2:0:4) F. (m) Prerequisite: Animal Husbandry 153. Richards  
Methods and techniques of artificial breeding are studied and accompanied by laboratory work.
- 464, 465. **Advanced Dairy Husbandry Practices.** (1-2:0:Arr.) F.S. (m) Richards  
Specific instruction and responsibility are given in modern milking methods, care and handling of milk, the pregnant cow, young calf, the fresh cow, the lactating cow.

These courses also count in animal husbandry:

- Agriculture 391. **Junior Seminar.** (1:1:0)
- Statistics 431. **Statistical Methods.** (3:3:0)

#### Advanced Undergraduate or Graduate Courses

507. **Animal Nutrition.** (4:3:2) F. (m) Morris
515. **Advanced Animal Breeding.** (3:3:0) S. (m) Richards
560. **Advanced Dairy Production.** (3:2:3) S. (m) Richards
571. **Advanced Poultry Practices.** (1-2:0:Arr.) F.S. (m) Morris
592. **Seminar.** (2:2:0) F.S. (m) Cannon  
A critical review and analysis of current research, findings, and methods in animal agriculture.

This course also counts in animal husbandry:

- Statistics 531. **Experimental Design.** (2:2:0)

#### Graduate Courses

601. **Experimental Animal Techniques.** (2:2:0) F.S. Cannon
660. **Advanced Livestock Management.** (2:1:3) S. Cannon
- 691, 692. **Animal Husbandry Research.** (1-2:0:3-6) F.S. Staff
- 694, 695. **Animal Husbandry Research.** (1-2:0:3-6) F.S. Staff
699. **Thesis for Master's Degree.** (2-6:Arr.:Arr.) F.S.Su. Staff

## Archaeology

**Professor:** Jakeman.

**Associate**

**Professor:** Christensen (chairman, 139 Maeser).



Archaeology is the science which investigates the history of man from the evidence of his actual material remains. By means of such evidence it is able not only to reconstruct man's early unwritten history, but also to check, clarify, and supplement the records of his early written history.

The emphasis of this department is on the division of archaeology which has as its purpose the checking, clarification, and supplementation of the records of early written history, i.e., historical archaeology. Instruction is also offered, however, in the division of prehistoric archaeology, or the archaeological study of the preliterate periods of human history.

Attention is given to the methods of archaeological research, and provision is made for practical in-service training in field methods. Undergraduate students, for example, may participate in excavations at prehistoric Indian sites in Utah Valley, while graduate students have the opportunity of accompanying University expeditions to Mexico and Central America.

An undergraduate major in this department leading to the Bachelor of Arts degree may be obtained by completing the following course work: (a) twenty-four semester hours in archaeology; and (b) either of the following combinations: History 110 and 388, or Anthropology 101 and 480.

The minor or collateral subject to accompany a major in archaeology must be either history or anthropology, except that with the approval of the Department of Archaeology chairman, a subject such as art, geology, geography, or a foreign language may be substituted.

An undergraduate minor requires the completion of 14 semester hours in archaeology.

The graduate major and minor at the master's level are also offered. The graduate major prepares the student for professional work in archaeology, such as teaching or research and writing. The following courses in the department are required, unless previously taken for undergraduate credit: 500, 551, 571, 690, and 695 or 696. A thesis is also required, which may be either a field report or an interpretative study and must be of professional caliber.

In this department courses not offered one year are ordinarily given the following year.

Archaeology 200 is prerequisite to all upper division and advanced undergraduate courses in this department.

**Lower Division Course**

- 200. Introduction to Archaeology.** (2:2:0) F.S. (G-HA m) Staff  
 Great discoveries in the history of archaeology, illustrating the aims and methods of this science; and the main fields and problems of modern archaeological research.

**These courses also count in archaeology:**

**Anthropology 241. The Growth of Culture in the Old World.** (3:3:0)

**Anthropology 246. The Growth of Culture in the New World.** (2:2:0)

**Upper Division Courses**

- 310, 311. Archaeology and the Scriptures.** (2:2:0 ea.) F.S. (m) Christensen, Jakeman  
 A basic course in historical archaeology: the early historical narratives of the Bible and Latter-day Saint scriptures, intensively examined in the light of archaeology.
- 327. Old World Archaeology: Prehistoric.** (2:2:0) F. (m) Christensen  
 A further study in the prehistory of the eastern hemisphere, with special attention to the late prehistoric civilizations (predynastic Mesopotamian and Egyptian, Indus Valley, Aegean, etc.)
- 380. Old World Archaeology: Historic.** (3:3:0) S. (G-HA m) Christensen, Jakeman  
 The major excavations throwing light on ancient historical records and civilizations of the Old World (Mesopotamian, Egyptian, Greek, Roman, etc.)
- 440. Archaeology and Early History of Middle America.** (3:3:0) F. (m) Jakeman  
 Recent excavations and research in the Indian and Spanish chronicles, throwing light on the origins and history of the ancient peoples of Mexico and Central America.
- 465. Archaeology of South America.** (2:2:0) S. (m) Christensen  
 Results of archaeological research in South America, especially as to the ancient civilizations and traditional history of the Andean region.
- 475. Archaeology of North America.** (2:2:0) S. (m) Christensen  
 Results of archaeological research in North America north of central Mexico, especially as to the prehistoric agricultural peoples of the Southwest and eastern United States.

**These courses also count in archaeology:**

**Art 403. Ancient and Primitive Art.** (2:2:0)

**Art 404. Oriental Art.** (2:2:0)

**History 300. Early Oriental History.** (2:2:0)

**Advanced Undergraduate or Graduate Courses**

These courses are especially designed for students planning graduate work and a professional career in archaeology.

- 500. History and Theory of Archaeology.** (2:2:0) F. (m) Christensen  
 A survey of the historical development of archaeology, with special attention to the theoretical foundations upon which this discipline has been built.
- 551. Methods of Archaeological Research: General and Field.** (4:0-2:4-8) F. (m) Christensen  
 The steps in an archaeological research project; an introduction to field and laboratory methods, including student excavation of a prehistoric site in Utah Valley.
- 571. Methods of Archaeological Research: Interpretative.** (2:2:0) S. (m) Pre-Jakeman  
 prerequisite: Archaeology 551.

Interpretation of empiric archaeological data as to culture units and their character and content; methods of chronological interpretation; and practice in archaeological ethnography and historiography.

- 590. Recent Developments in Archaeology.** (4:2:6) S. (m) Prerequisite: any two upper division courses in the department or consent of instructor.

Jakeman

Includes individual reports in two of the following fields: Near Eastern-biblical, Mediterranean (Aegean-classical-Christian), northern European, African, central and eastern Asiatic, Oceanian, Middle American, South American, North American.

### Graduate Courses

The emphasis of the following courses is on the two fields of archaeology bearing upon the fundamental problem of the origin of civilization in the Old and New Worlds, i.e., Near Eastern and Middle American-Andean.

A course in Akkadian, Egyptian hieroglyphics, or Hebrew inscriptions (see Department of Biblical Languages) should, if possible, be taken before the course "Library Research in Near-Eastern Archaeology" (695), while the course in the reading of ancient Maya and Aztec hieroglyphics (631), should, if possible, be taken before the course "Library Research in Middle American-Andean Archaeology" (696).

- 631. Introduction to the Reading of Maya and Aztec Hieroglyphics.** (3:1:6) F. Prerequisite: an undergraduate minor in archaeology.

Jakeman

- 641. Museum Methods and Teaching of Archaeology.** (3:1:6) F. Prerequisite: an undergraduate minor in archaeology.

Christensen

In-service training in archaeological museum methods and the teaching of archaeology.

- 651. Advanced Field Methods of Archaeology.** (5:0:15) S. Prerequisites: an undergraduate minor in archaeology and course 551.

Staff

Further in-service training in field methods as a member of an archaeological expedition to Middle America or the Near East.

- 690. Seminar in Historical Archaeology.** (2:2:0) F. Prerequisites: an undergraduate minor in archaeology and course 590.

Jakeman

Problems in historical archaeology, particularly the archaeology of the scriptures.

- 695. Library Research in Near-Eastern Archaeology.** (2:0:6) F. Must be taken concurrently with Archaeology 690.

Staff

Independent library research in oriental or biblical archaeology (Mesopotamian, Iranian, Egyptian, Syro-Palestinian, general Oriental, or general biblical).

- 696. Library Research in Middle American-Andean Archaeology.** (2:0:6) F. Must be taken concurrently with Archaeology 690.

Staff

Independent library research in Middle American or Andean archaeology (Mesoamerican or Peruvian archaeological and chronicled history, Mesoamerican hieroglyphic decipherment, or origins of Middle American-Andean civilizations).

- 697. Field Research.** (5-10:0:15-30) S. Prerequisite: completion of or concurrent registration in Archaeology 651.

Staff

Participation in an archaeological excavation in Middle America or the Near East, with opportunity for independent field research at the same or a nearby site.

- 699. Thesis for Master's Degree.** (1-6:0:15) S.Su. Prerequisite: Archaeology 571.

Staff

**Art**

**Professors:** Andrus, de Jong, Larsen (emeritus), Mathews.

**Associate Professors:** Gunn (chairman, 315 E), Turner, Weaver.

**Assistant Professors:** Breinholt, Darais, Wilson.

**Instructors:** Burnside, Johansen, Magleby, Takasaki.

**Special Instructor:** Taylor.



The programs leading to a major in art are planned for those who desire to pursue a general art course, or to prepare for careers in art education, commercial art, interior design, painting, printmaking and painting, and sculpture and ceramics. All options lead to the Bachelor of Arts degree.

Lower division requirements for the major in art include drawing (121 and 122) and design (227, 233, 239, 250, 256, and 263) or their equivalents. All programs begin with Art 121 followed by Art 122. The design requirements may be taken concurrently with the drawing requirements. Before attempting advanced design (310) the student must present to a faculty jury a portfolio of sixteen pieces of work, two from each of the required lower division classes. The portfolio should be presented during the second semester of the sophomore year.

Upper division requirements include twenty-two hours of upper division work including six hours of art history. The lower and upper division requirements for each of the optional programs for the major in art will follow.

The regular minor in art (non-teaching) should include at least four hours of upper division work.

Students who intend to teach on the secondary level may fill a composite teaching major in art. The three areas from which the dominant and two supporting fields may be chosen are: (1) crafts, (2) drawing and painting, and (3) commercial art and interior design. Prospective art teachers may fill an art major designed for teachers and support this with a teaching minor in another department. A teaching minor in art is also offered.

The sequence of education courses begins with Education 301 in the second semester of the sophomore year. For details on these programs and for sequence of courses in education see "Preparation of Secondary School Teachers" in the College of Education section.

Art courses from which composite teaching majors may be chosen are grouped under the following headings:

Crafts: 250, 256, 263, 312, 350, 352, 356, 358, 359, 361, 362, 366.

Drawing and Painting: 227, 233, 321, 322, 327, 329, 333, 335, 474, 476, 580, 582.

Commercial Art and Interior Design: 239, 314, 341, 342, 343, 415, 417, 447, 448, 544, 546.

**Optional Programs for a Major in Art:****Commercial Art**

Lower Division		Upper Division	
Requirements	Hours	Requirements	Hours
Art 121 .....	3	Art 306 .....	3
Art 122 .....	3	Art 310 .....	2
Art 227 .....	2	Art 322, 342, or 343 .....	2
Art 233 .....	2	Art 341 .....	3
Art 239 .....	2	Art 350 or 352 .....	2
Art 250 .....	2	Art 405 .....	3
Art 256 or 263 .....	2	Art 447 or 448 .....	2
Physics 177 .....	3	Art 546 .....	3
		Painting elective .....	2

**Interior Design**

Lower Division		Upper Division	
Requirements	Hours	Requirements	Hours
Art 121 .....	3	Art History .....	6
Art 122 .....	3	Art 310 .....	2
*Art 227 .....	2	Art 314 .....	2
*Art 233 .....	2	Art 333 or 335 .....	2
*Art 239 .....	2	Art 362 .....	2
*Art 250 .....	2	Art 415 .....	3
*Art 256 .....	2	Art 417 .....	3
*Art 263 .....	2	Art 501 .....	2
		Art elective (Art 321 recommended) .....	2

\*Art 110 may be substituted for any of these lower division classes above with approval of the department chairman.

**Painting**

Lower Division		Upper Division	
Requirements	Hours	Requirements	Hours
Art 121 .....	3	Art History .....	6
Art 122 .....	3	Art 310 .....	2
Art 227 .....	2	Art 321 or 322 .....	2
Art 233 .....	2	Art 327 or 329 .....	2
Art 239 .....	2	Art 333 or 335 .....	2
Art 250 .....	2	Art 474 or 476 .....	2
Art 256 .....	2	Art 580 or 582 .....	2
Art 263 .....	2	Painting electives .....	4

**Printmaking and Painting**

Lower Division		Upper Division	
Requirements	Hours	Requirements	Hours
Art 121 .....	3	Art History .....	6
Art 122 .....	3	Art 310 .....	2
Art 227 .....	2	Art 314 .....	2
Art 233 .....	2	Art 322 .....	2
Art 239 .....	2	Art 327 or 329 .....	2
Art 250 .....	2	Art 333 or 335 .....	2
Art 256 .....	2	Art 350 .....	2
Art 263 .....	2	Art 352 .....	2
		Art 474 or 476 .....	2

## Sculpture and Ceramics

Lower Division		Upper Division	
Requirements	Hours	Requirements	Hours
Art 121 .....	3	Art History .....	6
Art 122 .....	3	Art 310 .....	2
Art 227 .....	2	Art 321 or 322 .....	2
Art 233 .....	2	Art 350 or 352 .....	2
Art 239 .....	2	Art 356 .....	2
Art 250 .....	2	Art 358 .....	2
Art 256 .....	2	Art 359 .....	2
Art 263 .....	2	Art 361 .....	2
		Art 366 .....	2

## Teaching Art

Lower Division		Upper Division	
Requirements	Hours	Requirements	Hours
Art 121 .....	3	Art History .....	6
Art 122 .....	3	Art 310 .....	2
Art 227 .....	2	Art 321 or 322 .....	2
Art 233 .....	2	Art 341 or 312 .....	2
Art 239 .....	2	Art 350 or 352 .....	2
Art 250 .....	2	Art 356 .....	2
Art 256 .....	2	Art 361 .....	2
Art 263 .....	2	Art 366 .....	2
		Painting elective .....	2

## Lower Division Courses

- 101. Introduction to Art.** (2:2:0) F.S. (G-HA) Turner  
A survey of art appreciation. Introduction to basic understanding in art with emphasis on art processes through lectures, demonstrations, and studio and gallery visits. (Not for art majors.)
- 108. General Art.** (2:2:2) F.S.Su. (G-HA) Magleby  
Introduction to appreciation and creative expression. Lectures, demonstrations, and exploratory experiences in painting, lettering, crafts, print-making, and modeling. Offered to meet the needs of students filling general education requirements who wish to participate in art activities. (Not for art majors.)
- 110. Design in Everyday Life.** (2:3:0) F.S. (G-HA) Takasaki  
A study of good taste and sensitivity to design in contemporary life. (Not for art majors.)
- 121. Introduction to Drawing.** (3:6:0) F. (m) Burnside, Darais,  
Johansen, Takasaki  
The principles of art as applied to drawing. Work in perspective, accurate representation, and individual interpretation and expression.
- 122. Basic Figure Drawing.** (3:6:0) S.Su. (m) Prerequisite: Art 121. Andrus, Gunn, Magleby  
Drawing from the model. Experience with the elements of graphic expression.
- 227. Design in Oil Painting.** (2:4:0) F.S.Su. (m) Breinholt, Turner  
Oil colors as a design medium. Emphasis on expressive use of oil paints.
- 233. Design in Water Color Painting.** (2:4:0) F.S.Su. (m) Burnside, Turner  
Survey and application of various techniques of water color painting, with emphasis on design.
- 239. Design (Layout and Lettering).** (2:3:0) F.S. (m) Breinholt, Gunn  
Basic skills in lettering and designing for commercial purposes.

250. **Design in Printmaking.** (2:4:0) F.S.Su. (m) Andrus  
Introduction to fine printmaking as a medium of design including the relief, intaglio, planographic, and stencil processes.
256. **Design in Plastic Art Media.** (2:4:0) F.S.Su. (m) Wilson  
Exploratory design experiences with a variety of ceramic and sculptural materials in creating expressive form through the use of direct working processes.
263. **Design in Crafts.** (2:4:0) F.S.Su. (m) Johansen, Weaver  
Creative design in metal, wood, leather, mosaic, textile, and other media.

### Upper Division Courses

306. **Art History and Appreciation.** (3:3:0) F.S. (G-HA m) Mathews  
A survey of the art of the Western world covering the various periods including the contemporary styles in the 19th and 20th centuries.
307. **Contemporary Art.** (2:2:0) S.Su. (G-HA m) Burnside, Mathews  
The rise and progress of contemporary art in Europe and America.
308. **American Art.** (2:2:0) F. (G-HA m) Burnside  
A survey of American painting, architecture, and sculpture from the 17th century to the present.
310. **Advanced Design.** (2:4:0) F.S. Prerequisites: Art 121, 122, 227, 233, 239, 250, 256, 263. Darais, Weaver  
Art structure as a means for expression of ideas and emotions.
312. **Product Design.** (2:2:2) F. Prerequisites: Art 121, 122, 227, 239, 250, 263. Magleby  
Planning and making packages, models, or mock-ups. Emphasis on visual appeal.
314. **Interior Design.** (2:2:0) F. (m) Taylor  
Decorative and functional features of the interior of the home.
321. **Interpretive Drawing.** (2:4:0) F. Prerequisites: Art 121, 122, 239, 250. Darais, Staff  
Expressive use of the elements of visual communication. Emphasis on personal selection and interpretation of motifs.
322. **Advanced Figure Drawing.** (2:4:0) S.Su. Prerequisites: Art 121, 122, 239, 250. Andrus, Staff  
Advanced work in drawing the human figure with emphasis on structure and individuality of expression.
327. **Landscape and Still Life Painting.** (2:4:0) F. (m) Prerequisites: Art 121, 122, 227. Turner, Staff  
Oil painting from landscapes and still life objects with emphasis on developing the individual expressive capacity of the student.
329. **Landscape and Still Life Painting.** (2:4:0) S. (m) Prerequisites: Art 121, 122, 227. Turner  
Oil painting from landscape and still life objects with emphasis on developing the individual expressive capacity of the student.
333. **Water Color Painting.** (2:4:0) F.Su. (m) Prerequisites: Art 121, 122, 233. Turner  
Development of basic skills in water color painting from landscape and still life objects. Experience in the use of transparent water colors emphasized.
335. **Water Color Painting.** (2:4:0) S.Su. (m) Prerequisites: Art 121, 122, 233. Turner  
Development of basic skills in water color painting from landscape and still life objects. Experience in working with various aqueous media.

- 341. Layout.** (3:3:0) F. (m) Prerequisites: Art 121, 122, 239. Gunn  
Creation of the idea and organization of visual elements for commercial design.
- 342. Illustration.** (2:3:0) S. Prerequisites: Art 121, 122, 239. Gunn  
Introduction to editorial and advertising illustration, exploration of tools and media, visualization of the idea, approaches to rendering.
- 343. Fashion Illustration.** (2:3:0) S. Prerequisites: Art 121, 122, 239. Gunn  
Introduction to fashion illustration. The gesture proportion, and effective linear expression of the fashion figure; approaches to rendering apparel and the development of individual style.
- 350. Printmaking Workshop.** (2:4:0) F.Su. (m) Prerequisites: Art 121, 122, 250. Andrus  
Relief and intaglio fine printmaking based on traditional and contemporary concepts, materials, and procedures.
- 352. Printmaking Workshop.** (2:4:0) S. (m) Prerequisites: Art 121, 122, 250. Andrus  
Lithography and silk screen based on traditional and contemporary concepts, materials, and procedures.
- 356. Sculpture.** (2:4:0) F.S.Su. (m) Prerequisites: Art 121, 122, 256. Johansen  
Methods of creating expressive sculptural form which emphasize the direct working processes of modeling, buildup, and construction.
- 358. Sculpture.** (2:4:0) S. (m) Prerequisites: Art 121, 122, 256. Johansen  
Methods of creating expressive sculptural forms which emphasize the cutting and casting processes, encouraging an experimental use of materials.
- 359. Ceramics.** (2:4:0) F.S.Su. (m) Prerequisites: Art 121, 122, 256. Wilson  
Basic methods of creating functional and expressive objects from clay. Forming processes from constructing and throwing, through decorating and glazing to the final fired product.
- 361. Ceramics.** (2:4:0) F.S.Su. (m) Prerequisites: Art 121, 122, 256. Wilson  
Advanced and experimental methods of creating functional and/or expressive objects from clay. Concentration on the development of clay bodies and glazes using a variety of firing processes.
- 362. Textile Crafts.** (2:4:0) F.S. (m) Prerequisites: Art 121, 122, 250, 263. Johansen, Weaver  
Silk screen, block printing, stenciling, painting, and dyeing as media for textile design.
- 366. Metal Crafts and Jewelry Design.** (2:4:0) S.Su. (m) Prerequisites: Art 121, 122, 363 (non-art majors, 263 only). Johansen, Weaver  
Creative design of copper, silver, aluminum, and other media used in etching, enameling, forming and modeling, soldering, silver casting, lapidary, etc.
- 403. Ancient and Primitive Art.** (2:2:0) F. (G-HA m) Mathews  
The history of ancient art including Egypt, Mesopotamia, and Greece. Primitive cultures include African Negro, Pacific Islands, American Indian, and Pre-Columbian.
- 404. Oriental Art.** (2:2:0) F. (m) Takasaki  
History and appreciation of the art of the major periods and dynasties of the Orient from ancient to modern times.
- 405. Medieval and Renaissance Art.** (3:3:0) S. (G-HA m) Burnside  
The history and appreciation of Medieval and Renaissance painting, sculpture, and architecture.
- 415. Interior Design.** (3:3:0) F. Prerequisite: Art 314. Taylor  
A history of interior design and a study of period furnishings. (Continued in Art 417.)

417. **Interior Design.** (3:3:0) S. Prerequisites: Art 314, 415. Taylor  
A practical study of the manufacture, design, installation, and care of media and materials used in interior design.
447. **Portrait Photography.** (2:4:0) F. Prerequisites: Art 121, 122, 239, Physics Staff  
177.  
General portrait studio and darkroom procedures with emphasis on the plastic quality of light on the human head and figure.
448. **Pictorial Photography.** (2:4:0) S. Prerequisites: Art 121, 122, 239, Physics Staff  
177.  
Art structure in its application to photography. Experience in photographing landscape, still life, and the human figure.
474. **Portrait and Figure Painting.** (2:4:0) F.S. Prerequisites: Art 121, 122, 227. Andrus  
Oil painting from the model with emphasis on design and the development of a personal method.
476. **Portrait and Figure Painting.** (2:4:0) S. Prerequisites: Art 121, 122, 227. Andrus  
Oil painting from the model with emphasis on design and the development of an expressive style.

### Art Education

226. **Art for Elementary Teachers.** (2:2:1) F.S. Prerequisite: Art 110. Breinholt, Magleby, Takasaki, Weaver, Wilson  
Role of art in public schools; basic art education theory, including levels of artistic growth, classroom activities and aesthetic experiences for teacher growth.
377. **Basic Classroom Procedures.** (3:3:0) F. Prerequisite: Art 301. Breinholt
479. **Secondary Student Teaching.** (8:0:0) Su. Prerequisite: Art 377. Breinholt

### Advanced Undergraduate or Graduate Courses

501. **Aesthetics.** (2:2:0) S. (m) deJong  
Theoretical and practical criteria of aesthetic values.
544. **Portfolio Preparation.** (2:3:0) F. Prerequisites: Art 122, 239, 341, 342. Gunn  
An analysis of individual strengths and weaknesses. Specialization opportunities provided in various areas of commercial design and display. Preparation of portfolio emphasized.
546. **Advanced Commercial Art.** (3:4:0) S. Prerequisite: Art 544. Gunn  
Professional standards in a specialized field of commercial art emphasized. Students judged proficient by a faculty committee are given experience in a practicing agency.
580. **Mural Painting.** (2:4:0) F. Prerequisite: Art 310, 321 or 322. Staff  
Historical backgrounds, design, and execution of murals.
582. **Mural Painting.** (2:4:0) S. Prerequisite: Art 310, 321 or 322. Staff  
Historical backgrounds, design, and execution of murals.
586. **Studio Art.** (1-3:2-4:2-4) F.Su. Prerequisite: Permission of department chairman. Staff
588. **Studio Art.** (1-3:2-4:2-4) S. Prerequisite: permission of department chairman. Staff

### Graduate Courses

615. **Period Furnishing and Other Decorative Material for Interior Design.** (3:3:0) F. Staff
617. **Practical Problems in Interior Design.** (3:3:0) S. Staff

621. Advanced Drawing and Painting. (1-3:Arr.:Arr.) F.	Andrus
622. Advanced Figure Drawing and Painting. (1-3:Arr.:Arr.) S.	Andrus
624. Advanced Landscape Painting. (1-3:Arr.:Arr.) F.	Turner
625. Advanced Still Life Painting. (1-3:Arr.:Arr.) S.	Turner
627. Pictorial Composition. (1-3:Arr.:Arr.) F.	Turner
629. Pictorial Design. (1-3:Arr.:Arr.) S.	Staff
633. Advanced Water Color Painting. (1-3:Arr.:Arr.) F.	Turner
635. Advanced Aqueous Painting Media. (1-3:Arr.:Arr.) F.	Turner
639. Advanced Layout. (1-3:Arr.:Arr.) F.	Gunn
642. Advanced Illustration. (1-3:Arr.:Arr.) S.	Gunn
650. Advanced Relief and Intaglio Printmaking. (1-3:Arr.:Arr.) F.	Andrus
652. Serigraphy and Color Lithography. (1-3:Arr.:Arr.) S.	Andrus
656. Advanced Sculpture. (1-3:Arr.:Arr.) F.	Staff
658. Advanced Sculpture. (1-3:Arr.:Arr.) S.	Staff
665. Advanced Ceramics. (1-3:Arr.:Arr.) F.S.	Wilson
666. Advanced Metal and Jewelry Design. (1-3:Arr.:Arr.) F.S.	Weaver
668. Teaching Art in Secondary Schools. (1-3:Arr.:Arr.) S.	Staff
671. Survey of Recent Studies in Art Education. (1-3:Arr.:Arr.) F.	Gunn
674. Advanced Portrait Painting. (1-3:Arr.:Arr.) F.	Andrus
676. Advanced Figure Painting. (1-3:Arr.:Arr.) S.	Andrus
680. Advanced Mural Design and Painting. (1-3:Arr.:Arr.) F.	Staff
682. Advanced Mural Design and Painting. (1-3:Arr.:Arr.) S.	Staff
686. Studio Art. (1-3:Arr.:Arr.) F.	Staff
688. Studio Art. (1-3:Arr.:Arr.) S.	Staff
690. Color Theory. (2:2:0) F.	Andrus
692. Color Theory. (2:2:0) S.	Andrus
695. Seminar. (1:1:0) F.S.	Staff
699. Thesis for Master's Degree. (1-6:Arr.:Arr.) F.S.	Staff

# Bacteriology



**Professors:** Beck, Larsen.  
**Associate Professor:** Donaldson.  
**Assistant Professors:** R. Sagers (chairman, 110 B), Bradshaw, Hoskisson.  
**Instructor:** Chugg.  
**Special Instructors:** Call, Carlquist, LeCheminant, G. Sagers.

The curriculum of the Department of Bacteriology is designed to accomplish the following objectives: (1) train competent bacteriologists and medical technologists, (2) provide a basic background for all students' general education, and (3) serve other departments that request or require specific training in microbiology.

The minimum requirements for a major in the department are completion of the following courses or their equivalents in bacteriology and supporting fields: bacteriology, 20 hours; zoology or botany, 6 hours; Chemistry 105, 106, 220, 284; and Mathematics 111. Recommended courses in supporting fields are: Botany 101, 335, 376, 440; Chemistry 111, 112, 113, 221, 351, 352, 581, 582; Mathematics 111, 112, 213; Physics 201, 202; and Zoology 105, 261, 376, 417.

Students minoring in bacteriology are required to complete Bacteriology 321 and 322 or 331 plus Bacteriology 501 and additional hours selected from upper division courses to bring the total to 14 semester hours.

## Bacteriology Major

The following curriculum is recommended for students who desire adequate preparation for post-graduate university training in bacteriology. The courses in physics, advanced mathematics, and chemistry may be replaced by other courses in the physical or biological sciences by students who do not plan to do graduate work.

Freshman Year				Sophomore Year			
	F	S			F	S	
Chemistry 111, 112 .....	4	3		Chemistry 113, 221 .....	3	3	
Math 111, 112 .....	5	5		Physics 201, 202 .....	4	4	
English 111, 112 .....	3	3		Mathematics 213 .....	5		
Health 130 .....	2			Zoology 105 .....		3	
Religion .....	2	2		Religion .....	2	2	
History 170 .....		3		Botany 101 .....	3		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$		Humanities .....		3	
				Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	
Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$		Elective .....		2	
				Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	

Junior Year			Senior Year		
	F	S		F	S
Bacteriology 331, 501 ..	5	5	Bacteriology 491 .....	1	1
Chemistry 351, 352 .....	3	3	Bacteriology 511, 531 ..	4	2
Chemistry 354, 355 .....	1	1	Bacteriology 532 .....		2
Language .....	4	4	Bacteriology 521 or 541	2	
Religion .....	2	2	Bacteriology 551 .....		3
Social sciences .....	2-3	2-3	Bacteriology 552 .....		1-2
			Chemistry 581, 582 .....	3	3
Total Hours .....	17-18	17-18	Chemistry 584, 585 .....	2	2
			English literature .....	3	
			Religion .....	2	2
			Total Hours .....	17	16-17

### Medical Technology Major

Through a cooperative agreement with various hospitals, Brigham Young University has made provision for training medical technologists. The program is designed to prepare students for careers in clinical laboratories and medical research laboratories. The curriculum indicated in the following outline consists of a three year period of residence study at the Brigham Young University campus and one year of practical hospital internship.

During the fourth year (internship) the student will register at the University and pay tuition. After satisfactory completion of the internship, the student is eligible to receive a Bachelor of Science degree.

Failure to achieve a cumulative grade-point average of 2.0 by the end of the sophomore year will be considered sufficient reason to disqualify a student from further participation in the medical technology program.

Freshman Year			Sophomore Year		
	F	S		F	S
Math 101*, 111 .....	3	5	Chemistry 106, 284 .....	4	4
Chemistry 105 .....		4	Physics 201 .....	4	
Zoology 105 .....	3		Zoology 261 .....		4
English 111, 112 .....	3	3	Bacteriology 331 .....		5
Health 130 .....	2		Literature .....	3	
Religion .....	2	2	Religion .....	2	2
Social sciences .....	3		Social sciences .....		2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Humanities .....	3	
Electives .....		3	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$

\*A student able to bypass Mathematics 101 should contact his adviser and receive alternate curriculum.

Junior Year			Senior Year		
	F	S		F	S
Bacteriology 391 .....		2	Bacteriology 401,		
Bacteriology 491 .....	1	1	402, 403 .....	15	
Bacteriology 511, 501 ..	4	5	Bacteriology 404,		
Chemistry 221 .....	3		405, 406 .....		15
History 170 .....	3				
Zoology 176 or			Total Hours .....	15	15
Botany 176 .....		3			
Zoology 417 .....	3				
Religion .....	2	2			
Humanities .....		3			
Total Hours .....	16	16			

### Lower Division Course

121. General Bacteriology. (3:2:3) F.S. (G-BS) Recommended for students seeking a liberal education in bacteriology who do not have the necessary pre-

requisites to take the more advanced courses.

Staff

A survey of fundamental biological processes observed in bacteria and other microorganisms; growth, reproduction, genetic changes, and metabolism, together with beneficial and harmful activities related to man and other forms of life.

### Upper Division Courses

311. **Sanitation and Public Health.** (2:2:0) F.S. Home Study also. (G-BS m)

Staff

Sanitary and public health practices. For students desiring a basic course in the role of the individual and the community in promoting health and preventing disease.

321. **General Microbiology.** (3:3:0) F.S. (G-BS m) Prerequisites: any chemistry course or Physical Science 101 and 102, and any zoology or botany course.

Staff

The microbial world. Recommended for all students seeking a liberal education in bacteriology who have completed the necessary prerequisites.

322. **General Microbiology Laboratory.** (1:0:3) F.S. (G-BS m) Prerequisite: completion of or concurrent registration in Bacteriology 321.

Staff

331. **Microbiology.** (5:3:6) F.S. (G-BS m) Prerequisite: any organic chemistry course.

Staff

Introduction to bacteriology. The first bacteriology course for students majoring or minoring in bacteriology or medical technology and any other students having the necessary prerequisites and desiring a comprehensive course in bacteriology.

361. **Food Microbiology.** (2:1:3) S. (m) Prerequisite: Bacteriology 121 or equivalent.

Hoskisson

The microbiology of food.

371. **Dairy Microbiology.** (2:1:3) F. (m) Prerequisite: Bacteriology 121 or equivalent.

Hoskisson

The microbiology of dairy products.

381. **Water and Sewage Microbiology.** (2:1:3) S. (m) Prerequisite: Bacteriology 121 or equivalent.

Hoskisson

The microbiology of water purification and sewage disposal.

391. **Clinical Pathology.** (2:1:3) S. (m) Prerequisite: Bacteriology 331.

Call, LeCheminant

Theory and application of diagnostic methods employed in hospital laboratories.

- 401, 402, 403. **Applied Clinical Diagnosis Laboratory.** (5:2-3:6-10 ea.) F.

Staff

Applied clinical work in an approved hospital during a year's practical internship. Hospital selected must be accredited by Council of Medical Education of the A.M.A., and its pathologist and radiographic technician recognized by the American Society of Clinical Pathologists. Credit is given on basis of a statement from the approved pathologist that student has satisfactorily completed work.

- 404, 405, 406. **Applied Clinical Diagnosis Laboratory.** (5:2-3:6-10 ea.) S.

Staff

491. **Undergraduate Seminar.** (1:1:0) F.S. (m)

Staff

495. **Special Problems.** (1-4:Arr.:Arr.) F.S. (m)

Staff

Individual work on research problems based on the previous preparation of the student.

This course also counts in bacteriology:

Botany 335. Fungi. (3:1:6)

## Advanced Undergraduate or Graduate Courses

501. **Pathogenic Microbiology.** (5:3:6) S. (m) Prerequisite: Bacteriology 331 or consent of instructor. Larsen  
The characteristics of pathogenic bacteria, viruses, rickettsia, yeasts, and molds.
511. **Immunology.** (4:2:6) F. (m) Prerequisite: Bacteriology 501 or consent of instructor. Donaldson  
Theories of immunity; training in serological methods.
521. **Industrial Microbiology.** (2:2:0) F. (m) (Offered 1962-63 and alternate years) Prerequisite: senior or graduate status. Larsen  
The role of microorganisms in the production of such products as acids, alcohols, antibiotics, vitamins, and enzymes.
522. **Industrial Microbiology Laboratory.** (1:0:3) F. (m) (Offered 1962-63 and alternate years) Prerequisite: completion of or concurrent registration in Bacteriology 521. Larsen
531. **Virology.** (2:2:0) S. (m) Prerequisite: Bacteriology 501. R. Sagers  
Characteristics of viruses and virus diseases.
532. **Virology Laboratory.** (2:0:6) S. (m) Prerequisite: completion of or concurrent registration in Bacteriology 531. R. Sagers
541. **Cultivation and Nutrition of Bacteria.** (2:0:6) F. (m) (Offered 1963-64 and alternate years) Prerequisite: Bacteriology 331. R. Sagers  
A laboratory study of selective enrichment techniques, fundamental nutritional requirements, and growth properties of the major taxonomic groups of bacteria.
551. **Advanced Microbiology.** (3:3:0) S. (m) Prerequisite: Bacteriology 331. Beck
552. **Advanced Microbiology Laboratory.** (1-2:0:3-6) S. (m) Prerequisite: completion of or concurrent registration in Bacteriology 551. Beck, Bradshaw
561. **Radioactive Tracer Techniques in Biology.** (2:0:6) F. (m) (Offered 1962-63 and alternate years) Prerequisite: consent of instructor. Beck
581. **History of Bacteriology.** (1:1:0) F. (m) (Offered 1963-64 and alternate years) Prerequisite: senior or graduate status. Larsen

## Graduate Courses

611. **Advanced Immunology.** (2:2:0) S. (Offered 1962-63 and alternate years) Prerequisite: Bacteriology 511. Donaldson
651. **Special Topics in Bacterial Metabolism.** (2:2:0) F. Prerequisite: Bacteriology 552. Beck, Bradshaw, R. Sagers
661. **Bacterial Genetics.** (2:2:0) F. (Offered 1963-64 and alternate years) Prerequisites: Bacteriology 331, a course in general genetics, and Chemistry 582 or equivalent. Bradshaw  
Genetic processes in bacteria and viruses, with special emphasis on recombination, transduction, mutation, replication mechanisms, and related topics.
662. **Bacterial Genetics Laboratory.** (1:0:3) F. (Offered 1963-64 and alternate years) Prerequisite: completion of or concurrent registration in Bacteriology 661. Bradshaw
691. **Graduate Seminar.** (1:1:0) F.S. Staff
695. **Research to Furnish Data for Thesis.** (1-10:Arr.:Arr.) F.S. Staff
699. **Thesis for Master's Degree.** (1-4:Arr.:Arr.) F.S. Staff
795. **Doctoral Candidate Research.** (Arr.) F.S. Staff
799. **Dissertation for Ph.D. Degree.** (Arr.) F.S. Staff

This course also counts in bacteriology:

Agronomy 614. **Advanced Soil Microbiology.** (3:2:3)

## Bible and Modern Scripture



**Professors:** Done, Ludlow, Sperry, Yarn.

**Associate Professors:** Barron (chairman, 316 JK), Anderson, Andrus, Clark.

**Assistant Professors:** Anderson, Bankhead, Barrett, Bentley, Cowan, Doxey, Patch, Pearson, Rasmussen, Ricks, Turner.

**Instructors:** Meservy, Nielsen.

Courses in the Department of Bible and Modern Scripture are offered to help students meet the religion requirements of the University. An undergraduate major or minor is not offered in this department. A graduate major or minor is offered at both the master's and doctoral levels. Courses which may be applied toward the graduate minor may be arranged by consultation with the department chairman. (See the department's section in the Graduate School Catalog.)

### BIBLE

#### Lower Division Courses

211. **Introduction to the New Testament: Jesus and the Apostles.** (2:2:0) F.S.Su.  
Home study also. (G-R) Staff  
The Gospels and part of the book of Acts.
212. **Introduction to the New Testament: Paul and the Early Church.** (2:2:0) F.  
S.Su. Home Study also. (G-R) Staff  
Paul and his letters and the literature of the early church.

#### Upper Division Courses

- 301, 302. **Introduction to the Old Testament and Its Teachings.** (2:2:0) F.S.Su.  
Home Study also. (G-R) Done, Meservy, Rasmussen  
Course 301 is a brief introduction to the structure of the Old Testament and study of its great teachings, Genesis to I Kings 11. Course 302 considers I Kings 12 to Malachi.
401. **Israel's Prophets.** (2:2:0) F.S.Su. (G-R) Recommended: Bible 301 and 302.  
Meservy, Rasmussen, Sperry  
The messages of the great "writing prophets" and their value in their time and ours.
411. **Life and Teachings of Jesus.** (2:2:0) F.S.Su. (G-R)  
Anderson, Bankhead, Bentley, Patch, Ricks, Sperry, Turner  
The teachings of Jesus Christ and the major events of his life.

#### Advanced Undergraduate or Graduate Courses

501. **Analysis of the Old Testament: The Pentateuch and Historical Books.** (3:3:0)  
F.S.Su. Meservy, Rasmussen
502. **Analysis of the Old Testament: Prophetic Books.** (2:2:0) F.  
Meservy, Rasmussen

503. **Analysis of the Old Testament: Poetic and Wisdom Literature.** (2:2:0) S.  
Meservy, Rasmussen
511. **Paul's Life and Letters.** (2:2:0) F. Anderson, Patch, Sperry, Turner
512. **The General Epistles and the Apocalypse.** (2:2:0) S.  
Anderson, Patch, Sperry, Turner
513. **New Testament Times.** (2:2:0) S.Su. Anderson, Patch, Sperry

#### Graduate Courses

601. **History of the Hebrews.** (3:3:0) F.S. Meservy, Rasmussen, Sperry
604. **The Literature of the Old Testament.** (2:2:0) F.S.  
Meservy, Rasmussen, Sperry
605. **Canon and Text of the Old Testament.** (2:2:0) S. Staff
606. **The Apocrypha and Pseudepigrapha.** (2:2:0) S.Su. Nibley
607. **Religion of the Old Testament.** (2:2:0) F.Su. Staff
608. **Cultural and Religious Patterns of the Ancient Near East.** (2:2:0) S.Su.  
Sperry
610. **Early Christian Literature.** (2:2:0) F.Su. Staff
611. **Formation of the New Testament: Text and Canon.** (2:2:0) S.Su. Staff
612. **Textual Criticism of the New Testament.** (2:2:0) S.Su. Staff
709. **Seminar: Old Testament.** (2:2:0) F.S.Su. Staff
710. **Seminar: New Testament.** (2:2:0) F.S.Su. Staff
711. **Readings in Greek: The Gospel and Acts.** (3:3:0) F. Prerequisite: ability to  
pass departmental examination in Greek. Staff
712. **Readings in Greek: Paul's Letters.** (3:3:0) S. Prerequisite: ability to pass  
departmental examination in Greek. Staff
713. **Readings in Greek: General Epistles and the Apocalypse.** (3:3:0) S.Su. Pre-  
requisite: ability to pass departmental examination in Greek. Staff

### SCRIPTURE

#### Lower Division Course

- 121, 122. **Introduction to the Book of Mormon and Its Teachings.** (2:2:0) F.S.  
Su. Home Study also. (G-R) Staff  
Consideration of origin, content, and teachings of the Book of Mormon.

#### Upper Division Courses

- 324, 325. **The Doctrine and Covenants.** (2:2:0 ea.) F.S.Su. Home Study also. (G-  
R) Andrus, Cowan, Doxey, Nielsen  
Origin and contents of the Doctrine and Covenants.
327. **Introduction to the Pearl of Great Price.** (2:2:0) F.S.Su. Home Study also.  
(G-R) Andrus, Clark  
Origin and content of the Pearl of Great Price.
- 421, 422. **History and Teachings of the Book of Mormon.** (2:2:0 ea.) F.S.Su. (G-  
R) Bankhead, Ludlow, Neilsen, Pearson, Ricks, Turner  
Selected problems and teachings of Nephite sacred scripture.

#### Advanced Undergraduate or Graduate Course

527. **History and Doctrines of the Pearl of Great Price.** (3:3:0) F.S.Su.  
Andrus, Clark

**Graduate Courses**

- |      |   |                         |                       |
|------|---|-------------------------|-----------------------|
| 621. | Analysis of the Book of Mormon.         | (3:3:0) F.S.Su.         | Ludlow, Ricks, Sperry |
| 624. | Analysis of the Doctrine and Covenants. | (3:3:0) F.S.Su.         | Andrus, Doxey         |
| 627. | Seminar: Pearl of Great Price.          | (2:2:0) F.S.Su.         | Andrus, Clark         |
| 699. | Thesis for Master's Degree.             | (1-6:Arr.:Arr.) F.S.Su. | Staff                 |
| 721. | Seminar: Book of Mormon.                | (2:2:0) F.S.Su.         | Ludlow, Ricks, Sperry |
| 724. | Seminar: Doctrine and Covenants.        | (2:2:0) F.S.Su.         | Andrus, Doxey         |
| 728. | Readings in Modern Scripture.           | (1-2:Arr.:Arr.) F.S.Su. | Staff                 |
| 799. | Doctoral Dissertation.                  | (Arr.) F.S.Su.          | Staff                 |

**Professor:** Sperry.

## Biblical Languages

**Assistant**

**Professors:** Rasmussen (chairman, 19 PhP),  
Ricks.

**Instructor:** Meservy.



An undergraduate major is not yet available in this department. A graduate major is not offered at this time by the department proper, but some courses beyond the elementary Hebrew grammar course may be applied toward a graduate degree in related fields, such as Bible and modern scripture. The first two years of Hebrew are prerequisite to most of the other offerings of the department; they may be taken during the student's undergraduate years.

For lower division courses in the related field of modern Hebrew as spoken in Israel today, see Hebrew 101, 102 in the Languages Department. Students completing these courses may enter the Biblical Hebrews studies at the 592 or 593 level, depending on their aptitude and achievement.

Students interested in certain scriptural and religious fields should consider also such offerings of the Languages Department as Greek and Latin.

### Advanced Undergraduate or Graduate Courses

- 591, 592. **Biblical Hebrew.** (5:5:0 ea.) F.S. Meservy, Rasmussen  
A beginning course in the classical Hebrew of the Old Testament. Valuable for students and teachers as a tool for interpreting and appreciating the Bible.
- 593, 594. **Hebrew Grammar and Selected Readings.** (3:3:0 ea.) F.S. Prerequisite: Biblical Languages 591, 592 or equivalent acquaintance with Hebrew. Meservy, Rasmussen

### Graduate Courses

690. **Studies in the Hebrew Old Testament.** (3:3:0) F. Prerequisite: two years of Hebrew or consent of instructor. Meservy, Rasmussen, Sperry
691. **Studies in Hebrew.** (3:3:0) S. Prerequisite: Biblical Languages 690. Meservy, Rasmussen, Sperry
- 693, 694. **Biblical Aramaic and the Targums.** (2:2:0 ea.) Arr. Prerequisite: at least one year of Biblical Hebrew. Meservy, Sperry
791. **Syriac.** (5:5:0) Arr. Prerequisite: two years Biblical Hebrew or one year Aramaic. Meservy, Sperry
792. **Syriac.** (3:3:0) Arr. Prerequisite: Biblical Languages 791. Meservy, Sperry
- 793, 794. **Akkadian.** (2:2:0 ea.) Arr. Prerequisite: two years Biblical Hebrew. Meservy, Sperry
- 797, 798. **Ugaritic.** (3:3:0) Arr. Prerequisite: two years Biblical Hebrew. Meservy

The alphabet, vocabulary, and grammar of the language of the Ras Shamra tablets. Valuable for its parallels to Biblical Hebrew.

## Botany

**Professor:** Harrison (chairman, 232 B).

**Associate**

**Professors:** Christensen, McKnight, Moore, Stutz.

**Assistant**

**Professors:** Murdock, Welsh.

**Instructor:** Van Cott.



A major in botany is designed to prepare a student for a variety of professional careers in secondary schools or institutions of higher learning, in governmental service, in industry, or in research institutions. Botanists are employed in positions such as teacher, conservationist, range manager, geneticist, plant breeder, plant physiologist, mycologist, plant quarantine inspector, taxonomist, museum curator, park ranger, park naturalist, and in forestry research. Students also find a major in botany to be a useful adjunct to other professional careers. Many people find this to be a field of great interest for cultural and aesthetic values and for recreational and avocational pursuits.

Administration of the range management and pre-forestry programs is under the direction of the Department of Botany.

Students majoring in botany (except those planning to qualify for biology teaching or range management) should take the following courses:

Botany 101, 110, 201, 321, 331, 335, 376, 390, 440, 450, 490.

Majors are required also to gain some field experience in botany. This requirement may be satisfied by taking Botany 455, by attendance at an approved summer biological station or field camp, or by appropriate summer field work.

Recommended supporting courses:

Zoology 105, 212 or 230, 213, 264; Bacteriology 321 and 322 or 331; Agronomy 141, 303; Geology 101, 111, 112; Mathematics 101, 111, 112; Chemistry 111, 112, 351, 352; Physics 201, 202.

### Major and Minor for Secondary Teachers

The preparation and certification of teachers in biology in secondary schools is a cooperative program between the departments dealing with the biological sciences and the College of Education. Prospective biology teachers should complete either a botany major and a zoology minor, or a zoology major and a botany minor.

**27-hour list (Major):** Botany 101, 110, 201, 205, 321, 331, 376, 378, 390 or 490, 440, 450.

**16-hour list (Minor):** Botany 101, 105, 110, 201; 6 hours selected from 205, 321, 440, 450, 460.

Bacteriology 321 and 322 are also required.

### Required Supporting Courses for Biology Teachers

Mathematics 101, 111; one year of chemistry beyond Chemistry 100, preferably Chemistry 111, 112.

### Recommended Supporting Courses

Agronomy 141; Bacteriology 501; Botany 335, 455, 460; Geology 111, 112, organic chemistry.

#### Pre-Forestry

Students may prepare themselves for training in forestry by taking the pre-forestry curriculum during their first two years of college work. This pre-forestry program is under the supervision of the Department of Botany.

During the freshman and sophomore years, students are registered for the basic science courses and the general education courses required for training in forestry. Upon completion of this pre-forestry program students may enroll in a professional forestry school for their major work in forestry.

#### Range Management and Range Conservation

The course requirements for a major in range management are outlined below:

Botany 101, 105, 110, 176 or 376, 440, 450.  
 Agronomy 141, 251, 440.  
 Three hours from the following: Agronomy 302, 303, 305, 308, 311.  
 Animal Husbandry 207, 335, 340.  
 Economics: Ag. Econ. 101 or Economics 101; Ag. Econ. 410.  
 Chemistry 105 and 106 or 111 and 112.  
 Forestry: Botany 469.  
 Geology 101, 102.  
 Mathematics: Math 101, 111; Statistics 221.  
 Zoology: two courses from 105, 230, 347, 357, 451.  
 Range management: Ag. Econ. 350; Botany 455, 462, 465, 493 or 396.  
 Four to six hours from the following: Agronomy 455; Botany 466, 480, 561, 615, 750.

Minimum credit in range management is 15 to 17 hours.

### Lower Division Courses

101. **Plant Biology.** (3:2:3) F.S. (G-BS m) Staff  
 Prerequisite to further work in the plant sciences. Recommended for the non-science student. Structure, physiology, and reproduction of the higher plants and their relationships to other organisms, including man.
105. **Plant Kingdom.** (3:2:3) F.S. (G-BS m) McKnight  
 Survey of the plant kingdom, including the morphology of representative species.
110. **Plant Classification.** (3:2:3) S. (m) Home Study also. Harrison, Welsh  
 General principles of taxonomy and use of manuals with emphasis on classification of local flora.
161. **General Forestry.** (3:3:0) F. Staff  
 General principles of forestry and forest conservation. The relation of forests to human affairs.
176. **Heredity.** (3:3:0) F.S. Home Study also. (G-BS m) Prerequisite: Botany 101 or Zoology 105. Stutz  
 The principles of genetics and their applications to other sciences and to human welfare.
201. **Microscopes and Their Uses.** (1:0:3) F. Stutz  
 Various types of microscopes and their effective uses.

- 205. Field Botany.** (2:1:3) F.S. (G-BS m) Staff  
Names and characteristics of common trees and shrubs and their uses as  
ornamentals and in commerce.

### Upper Division Courses

- 321. Plant Anatomy.** (2:1:3) S. (m) Prerequisite: Botany 101 or Zoology 105.  
Christensen
- 331. Morphology of Green Plants.** (5:3:6) S. (m) Prerequisites: Botany 101 or  
Zoology 105, and Botany 201 or consent of instructor. McKnight  
Basic structures, relationships, and life histories of representatives of the  
major plant groups, excluding the fungi.
- 335. Mycology.** (3:1:6) F. (m) Prerequisites: Botany 101 or Zoology 105, and  
Botany 201 or consent of instructor. Staff  
Structures, relationships, and life histories of representative fungi.
- 376. Genetics.** (3:3:0) F. (G-BS m) Prerequisite: Botany 101 or Zoology 105.  
Stutz  
The principles of genetics.
- 377. Secondary Teaching Procedures in Biology.** (3:3:1) F. Prerequisite: Instruc-  
tion 301. Welsh  
For course description see Instruction 377.
- 378. Genetics Lab.** (1:0:3) F. (m) Prerequisite: completion of or concurrent regis-  
tration in Botany 376 or equivalent. Stutz  
Laboratory and field exercises in genetics.
- 390. Seminar—Junior.** (1:1:0) F. (m) Staff  
Required of all majors in their junior year. Presentation and discussion of  
topics from the current literature of the field.
- 396. Seminar in Plant Ecology and Range Management.** (1:1:0) S. Staff  
Presentation and discussion of current research in range ecology and range  
management.
- 440. Plant Physiology.** (4:3:3) S. (m) Prerequisites: Botany 101 and Chemistry  
111. Harrison  
Water relations, mineral nutrition, synthesis of foods, digestion, and  
growth in plants.
- 450. Plant Ecology.** (3:2:3) F. (m) (Field trips to be arranged) (G-BS) Prerequi-  
site: Botany 101 or Zoology 105. Christensen  
Relation of plants to their environments, their adaptations to factors of soil  
and climate, their influences on each other, and their relationships to other  
organisms.
- 455. Field Ecology.** (1-3:1:3-9) S.Su. (m) (Includes one field trip of about one  
week's duration.) Prerequisite: consent of instructor. Murdock  
Ecological field work in Utah's forests and rangelands.
- 460. Conservation of Natural Resources.** (2:2:0) S. (G-BS m) Home Study also.  
Christensen, Murdock  
Need for, and means of providing conservation of renewable natural re-  
sources.
- 462. Range Management.** (3:2:3) S. Prerequisite: Botany 450. Staff  
Problems associated with the management, grazing, revegetation, and  
maintenance of range lands.
- 465. Range Forage.** (2:0:6) F. Prerequisite: Botany 110. Christensen  
Characteristics, distribution, and value of the more important forage plants  
of the western range.
- 466. Range Revegetation and Improvement.** (3:2:3) F. Prerequisite: Botany 450.  
Christensen

Artificial and natural revegetation and the use and development of fencing, watering, and other range facilities.

- 469. Forest Management.** (3:3:0) F. (Field trips to be arranged) **Staff**  
Multiple use management of forest resources.
- 479. Secondary Student Teaching.** (4-8:0:20-40) S. Prerequisite: Botany 377. **Welsh**  
For course description see Instruction 479.
- 480. Plant Pathology.** (3:2:3) F. (m) Prerequisite: Botany 101 or Zoology 105. **Stutz**  
Important plant diseases, their identification, causes, and methods of control.
- 490. Seminar—Senior.** (1:1:0) F. (m) **Staff**  
Presentation and discussion of topics from current literature of the field. Required of all majors in their senior year.
- 493. Seminar in Range Management.** (1:1:0) F. **Staff**  
Presentation and discussion of current range management topics. Does not take the place of 390.
- 496. Special Problems in Range Management.** (1-3:0:3-9) F.S. **Staff**
- 498. Special Problems.** (1-3:0:3-9) F.S. **Staff**

#### Advanced Undergraduate or Graduate Courses

- 501. Histological Technique.** (2:0:6) F. Prerequisites: Botany 101 or Zoology 105, and Botany 201. **Staff**  
Techniques of preparing plant tissues for microscopic examination.
- 510. Advanced Taxonomy.** (3:1:6) S.Su. Prerequisites: Botany 110 and 176 or consent of instructor. **Welsh**
- 525. General Cytology.** (3:2:3) F. Prerequisite: Botany 101 or Zoology 105. **Moore, Stutz**  
The organization and functions of protoplasm.
- 550. Plant Geography.** (3:2:3) F. (Offered alternate years) **Staff**  
Plant distribution and the origin of plant communities in the light of present and recent geological conditions.
- 561. Watershed Management.** (2:2:0) S. (Field trips to be arranged) **Murdock**
- 591. Seminar.** (1:1:0) F. **Staff**
- 598. Special Problems.** (1-3:0:3-9) F.S. **Staff**

#### Graduate Courses

- 615. Agrostology: Taxonomy and Ecology of Grasses.** (2:1:5) F. Prerequisite: Botany 110; recommended: Botany 176. **Harrison**  
Classification and ecology of grasses. Important forage species are emphasized.
- 630. Angiosperm Morphology.** (4:3:3) F. (Offered alternate years) Prerequisite: Botany 105 or 331. **Moore**  
A detailed study of the flowering plants, emphasizing relationships.
- 634. Morphogenesis.** (3:2:3) F. Training recommended in the following areas: taxonomy, anatomy, and physiology or biochemistry. **Moore**  
The problem of development of form in organisms, with emphasis on plants.
- 635. Advanced Mycology.** (4:2:6) S. Prerequisites: Botany 101 or Zoology 105, and Botany 335. **McKnight**

638. **Fleshy Fungi.** (2:1:3) Su. Prerequisite: a laboratory course in bacteriology, botany, or zoology. McKnight
639. **Paleobotany.** (3:2:3) S. Prerequisite: Botany 101 or 105. Staff
641. **Physiology of Fungi and Algae.** (4:3:3) F. (Offered alternate years) Prerequisite: Botany 335, 440. Staff
655. **Field Ecology.** (1-3:Arr.:Arr.) S.Su. (Extended field trip) Prerequisite: consent of instructor. Murdock  
Ecological field work in forests and rangelands.
676. **Cytogenetics.** (3:3:0) F. Prerequisite: Botany 525. Stutz
678. **Speciation.** (3:3:0) S. Prerequisite: genetics or consent of instructor Stutz
- 697, 698. **Special Problems.** (1-3:0:3-9) F.S. Staff
699. **Thesis for Master's Degree.** (1-6:0:3-12) F.S. Staff
740. **Advanced Plant Physiology I.** (3:2:3) S. Prerequisite: Botany 440. Harrison
741. **Advanced Plant Physiology II.** (3-4:2-3:3) F. Prerequisite: Botany 440. Harrison
742. **Plant Nutrition and Growth.** (3:2:3) F. Prerequisites: Botany 440, Chemistry 111, 112; recommended: organic chemistry. Harrison
750. **Grassland and Desert Ecology.** (3:3:0) S. Prerequisite: consent of instructor. Christensen, Murdock
752. **Forest Ecology.** (3:3:0) F. Prerequisite: consent of instructor. Christensen, Murdock
760. **Conservation of Natural Resources.** (1-3:1-3:0-3) F. Prerequisite: consent of instructor. Christensen, Murdock
776. **Population Genetics.** (3:3:0) S. Prerequisite: Botany 176, Botany 376, or Zoology 376. Stutz
795. **Research for Doctoral Degree.** (2-4:0:6-12) F.S. Staff
799. **Doctoral Dissertation.** (Arr.) F.S. Staff

**Professors:** Christensen, Peterson.

**Associate Professors:** Crandall, Croft.

**Assistant Professors:** Bell (chairman, 351 JK) Polson, Taylor.

**Instructors:** Ashby, DeMille, Guymon, Herde, Warner, Waters.

## **Business Education and Office Management**



The Business Education and Office Management Department provides, within the framework of the College of Business goals, the preparation needed by young men and women for responsible positions in business and professional business teaching. The four-year programs described below include basic preparation in general education and the college "core" of business fundamentals. A maximum of five hours of "D" credit in required business education and office management courses (or approved substitutes) will be accepted towards satisfying the requirements of any of the majors in this department.

### **Communication and Office Administration**

The ability to communicate effectively, to supervise people, to solve administrative problems, and to perform technical work in the office operations area is emphasized in the communication and office administration program. Office internships are available to a limited number of students who meet specific requirements. Types of persons who may be interested in specialized training in office management are: (1) Those training for work in small offices where the office manager is in charge of all office functions; (2) Those training for work in large offices where supervision and control of certain functions of office management may be a full-time position; and (3) Those who aspire to management internship programs in industry and government.

### **Executive Assistant Program**

Recognizing the need for capable, mature administrative assistants, the executive assistant program provides a broad background in general education, business fundamentals, and secretarial (executive assistant) experience. To work cooperatively and understandingly with the business executive is a basic tenet in the preparation of young women desiring to become executive assistants.

### **Business Teacher Education**

The College of Business cooperates with the College of Education in the preparation of qualified business teachers. The business teacher program is designed to include participation by the College of Business faculty in the professional preparation of the business teacher. Majors are recommended for graduation upon the successful completion of (a) the prescribed program of preparation in the Department of Business Education and Office Management for prospective business teachers, (b) one of three approved teaching minors in the College of Business, and (c) the professional requirements for certification to teach in the public secondary schools in states where four-year degrees are required.

### Graduate Business Education

A complete program of graduate courses in business education is provided for teachers desiring a master's degree, or for experienced teachers desiring to fulfill state recertification requirements. Consult the graduate catalog for further details.

#### Business Technology

(Two-year program)

See the Technical and Semi-Professional Institute section of this catalog.

### Communication and Office Administration

#### I. College of Business Core Requirements:

	Hours
Accounting 131 .....	2
Accounting 201 and 202, or 211 and 212 .....	6
Accounting 342 .....	3
Business Management 347 .....	3
Business Management 348 or Economics 453 .....	3
Economics 111, 112 .....	6
Economics 345 or 274 .....	3
Statistics 221 .....	3

#### II. Communication and Office Administration Requirements:

B.E.O.M. 203 .....	2
B.E.O.M. 204 .....	2
B.E.O.M. 206 .....	2
B.E.O.M. 220 .....	3

B.E.O.M. 305 .....	3
B.E.O.M. 320 .....	3
B.E.O.M. 370 .....	3
B.E.O.M. 480 .....	2
B.E.O.M. 485, 486 .....	1, 1
Business Management 480 .....	1
Six additional hours to be selected from the following in consultation with the supervisor:	
B.E.O.M. 570* .....	4
B.E.O.M. 590* .....	2
Accounting 301 .....	5
Accounting 255 .....	2
Accounting 555 .....	3
Business Management 420 .....	3
Business Management 481 .....	1
*Approval of department chairman required	

### Executive Assistant Program

#### I. College of Business Core Requirements: (See listing under Communication and Office Administration.)

#### II. Executive Assistant Program Requirements:

B.E.O.M. 203 .....	2
B.E.O.M. 204 .....	2
B.E.O.M. 206 .....	2
B.E.O.M. 220 .....	3
B.E.O.M. 305 .....	3
B.E.O.M. 320 .....	3
B.E.O.M. 313 .....	4

B.E.O.M. 315 .....	4
B.E.O.M. 370 .....	3
B.E.O.M. 475 .....	3
B.E.O.M. 485 or 486 .....	1
Business Management 480 or 481 .....	1
The following courses may be used as electives or substitutes only with approval of the department chair- man.	
B.E.O.M. 570 .....	4
B.E.O.M. 590 .....	2

### Business Teacher Education

#### I. Professional Education Requirements:

Business Education 377 .....	3
Business Education 479 .....	8
Other professional education courses .....	14
(See "Preparation of Secondary	

School Teachers" in the College of Education section for other required professional courses leading to secondary certification. Certification requirements must be completed to be recommended for graduation.)

**II. Business Teacher Education Requirements:**

B.E.O.M. 203 .....	2
B.E.O.M. 204 .....	2
B.E.O.M. 206 .....	2
B.E.O.M. 220 .....	3
B.E.O.M. 300 .....	2
B.E.O.M. 311 or 313 .....	4
B.E.O.M. 315 .....	4
B.E.O.M. 320 .....	3
B.E.O.M. 370 .....	3

B.E.O.M. 475 .....	3
B.E.O.M. 485 or 486 .....	1
Electives selected from the College of Business exclusive of the teaching minor ....	6
(Note: To qualify for a teaching major, students in the business teacher program must also complete Accounting 201 and 202, or 211 and 212; and Economics 101.)	

**Minors**

Three approved teaching minors within the College of Business are available to prospective business teachers. See the College of Education section of this catalog for details.

The Business Education and Office Management Department also offers two non-teaching minors—one in the office management program and one in the executive assistant program.

An office management minor requires the completion of 14 hours of credit, including B.E.O.M. 206, 220, 305, 320 and 370.

An executive assistant minor requires the completion of 14 hours of credit, including B.E.O.M. 203, 206, 220, 311 and 370.

**Lower Division Courses**

- 101. Fundamentals of Typewriting.** (2:3:2) F.S.Su. Staff  
Mastery of the keyboard and development of basic skills. Students with high school credit in typewriting should not register for this course.
- 111. Elementary Shorthand.** (4:5:1) F.S.Su. Staff  
Fundamentals of shorthand with emphasis on fluency in reading and writing shorthand. Students with previous courses in Gregg shorthand should not register for this course.
- 112. Intermediate Shorthand.** (4:5:1) F.S.Su. Staff  
Development of shorthand writing and control beginning with 60 words per minute, to develop a rate of 80 to 100 words per minute for 3 minutes on unfamiliar material.
- 203. Speedbuilding in Production Typewriting.** (2:3:2) F.S.Su. (m) Staff  
Intensive drills with emphasis on measurement of speed and control in the production of manuscripts, outlines, minutes, tabulations, letter writing, rough drafts, and legal instruments.
- 204. Advanced Production Techniques in Typewriting.** (2:3:2) F.S. Staff  
Application of advanced production techniques to practical business problems including statistical reports, office projects, editing, and composition.
- 206. Calculating and Posting Machines.** (2:3:2) F.S.Su. (m) Staff  
Instruction and practice in the operation of adding machines, key-driven calculators, rotary calculators, printing calculators, and posting machines for solving practical business problems.
- 220. Business Communication.** (3:3:0) F.S.Su. (m) Staff  
Current means of communication; experience in the composition of business correspondence.

The following course also counts in business education and office management:

**Accounting 255. Basic Concepts of Data Processing.** (2:2:1)

## Upper Division Courses

- 305. Principles and Methods for Analyzing Office Operations.** (3:3:0) F.S. (m) Staff

Introduction to problems of office management, tools, and methods of problem solution. Areas of concentration include office standards and quality control, job analysis and work simplification, time studies and automation in office operations.

- 311. Advanced Shorthand.** (4:5:1) F.S.Su. (m) Staff

Places emphasis on accelerated shorthand writing and rapid transcription of letters. Upon entering this course students should be able to take dictation at 80 words per minute and typewrite at 50 words per minute.

- 313. Expert Shorthand.** (4:5:1) F. Staff

Expert shorthand speed course for students writing above 120 words per minute in making reports of committee meetings, board of directors' meetings, or conferences. Includes specialized vocabulary, testimony dictation, and Congressional Record material.

- 315. Transcription and Speedbuilding.** (4:5:1) F.S. Staff

Emphasis on accurate and rapid shorthand production. For students who write 100 words per minute and who desire to increase their speed to 120 words per minute.

- 320. Report and Business Writing.** (3:3:0) F.S. (m) Staff

Intensive experience in communicating business analyses and results of fact-finding procedures.

- 370. Records Control and Office Machines.** (3:3:3) F.S. (m) Staff

Fundamentals of filing, machine transcription, duplicating machines, other office equipment supplies, and procedures.

- 475. Procedures for Executive Assistants.** (3:3:2) F.S. Prerequisites: B.E.O.M. 204, 220, and 370. Staff

- 480. Case Studies in Office Management.** (2:2:1) F.S. Staff

Extensive use of cases in office management. Student analysis, group discussions, and written reports form the principal basis for conduct of the course.

- 485, 486. Lectures on Office Administration.** (1:1:0 ea.) F. Staff

Each offered alternate years.

These courses also count in business education and office management:

Bus. Mgt. 420. Human Relations in Administration I. (3:3:0)

Bus. Mgt. 480, 481. Executive Lectures. (1:1:0)

## Business Teacher Education

- 300. Fundamentals of Business Education.** (2:2:0) F.S. Staff

Designed to give an understanding of the fundamentals of business education.

- 377. Secondary Teaching Procedures.** (3:3:1) F.S. Staff

For course description see Instruction 377.

- 479. Secondary Student Teaching.** (8:0:40) F.S. Staff

For course description and fee see Instruction 479.

## Advanced Undergraduate or Graduate Courses

- 570. Cooperative Business Experience Internship.** (4:4:4) F.S.Su. Staff

Through cooperation of business and industry, this work-education program is open to the following qualifying majors: office management, executive assistant, and business teacher. Students may register for this course with the approval of the department chairman only.

590. Seminar. (2:2:0) F.S.Su.

Staff

The following course also counts in business education and office management:  
Accounting 555. Advanced Data Processing. (2:2:1)

### Graduate Courses

615. **Methods of Instruction in Business Education: Typewriting and Shorthand.** (2:2:0) F. Staff  
A critical evaluation of classroom methods, psychology of learning, and findings of research pertaining to improvement of instruction in typewriting, shorthand, and related subjects.
620. **Methods of Instruction in Business Education: Bookkeeping and Economic Education.** (2:2:0) S. Staff  
An analysis of course content, classroom methods, and teaching materials pertaining to improvement of instruction in bookkeeping and economic education.
630. **Current Developments Influencing the Curriculum and Content of Business Education.** (2:2:0) F. Staff  
An examination of recent technological developments, such as automation in business, and an analysis of their effect on the curriculum content of business education.
635. **Analysis of Recent Research in Business Education.** (2:2:0) S. Staff  
Investigation of recent developments in research in business education, including analysis of research techniques.
640. **Trends of Thought in Business Education.** (2:2:0) S. Staff  
Fundamental ideas that have shaped the business curriculum in the United States, and basic issues that have affected purposes, trends, and control of business education in public and private institutions.
665. **Practicum in Business Education.** (2:2:0) F.Su. Staff  
Planning and development of practical and creative projects in the field of business education, individually or in groups. Experienced teachers use actual school problems and projects as the nucleus for the term's work.
- 675, 676. **Business Education Workshop.** (2:2:0 ea.) Su. Staff  
A series of clinics in selected business subjects. Each offered alternate years.
694. **Independent Readings.** (1-2:1-2:0) F.S.Su. Staff
698. **Field Project for Master's Degree.** (1-4:1-4:0) F.S.Su. Staff
699. **Thesis for Master's Degree.** (1-6:Arr.:Arr.) F.S.Su. Staff

**Business  
Management**



**Professors:** Boyle (emeritus), Clark, Oaks, W. Taylor.  
**Associate Professors:** Pratt (chairman, 395 JK), McKay.  
**Assistant Professors:** Covey\*, Done, Faux\*, Sessions.  
**Instructors:** Daines, J. Taylor.

The primary objective of this department is to prepare students for professional careers in business management. The courses of study and methods of instruction are designed to develop personal qualities in each student which will enable him to realize his full potentialities as an effective administrator. Stress is placed on the development of such qualities as the art of decision making, facility in the use of analytical tools and techniques, and the ability to communicate effectively.

Students planning to major in this department should complete, in the time sequence indicated, the following general education, college, and departmental core requirements. After completing these general education and core requirements a student can elect any one of the different concentrations presented in detail below.

For details concerning the program of graduate study leading to the Master of Business Administration degree, students should consult the graduate catalog.

**GENERAL EDUCATION**

(Freshman through senior years)

See the Student Academic Services section of this catalog for courses needed to satisfy the general education requirements of the University. A detailed discussion of courses which can be taken in each required area is listed therein.

**COLLEGE AND DEPARTMENTAL CORE**

Freshman and Sophomore Years		Junior Year		Hours
	Hours			
Accounting 131, 132		Accounting 342 .....	3	
or Mathematics 111 .....	4-5	Economics 345 or 346 .....	3	
Accounting 201, 202 .....	6	Business Management 340 .....	3	
Economics 111, 112 .....	6	Business Management 347 .....	3	
Statistics 221 .....	3	Business Management 348 .....	3	
		Senior Year		
		Business Management 420 .....	3	
		Business Management 589 .....	3	

**BUSINESS ADMINISTRATION CONCENTRATION**

The business administration course is designed to integrate the various areas included in the department curriculum and consequently to give exceptional students a broad background in management training at the undergraduate level. Particular emphasis is placed on the use of the case method.

Students who desire to adopt this concentration should apply in writing to the chairman of the department. Upon acceptance, they will be assigned a counselor to work with them to outline the courses which they will be required to complete. Acceptance is based on the student's scholarship, previous experience, and objectives in applying for a special course of training.

### FINANCE AND BANKING CONCENTRATION

The course work offered in this area is designed, first, to familiarize business students with the elements of financial planning and, second, to provide specialized work for those who seek positions of management and executive responsibility in financial institutions or the financial departments of business firms. The requirements are flexible enough to allow some specialization toward commercial banking, investment banking, business finance, insurance, real estate, investment management, or financial counseling.

Students electing to concentrate in this area of the Department of Business Management are required to take the three courses listed under Group A and a minimum of five semester hours selected from the courses listed under Group B.

Group A	Hours	Group B	Hours
Business Management 450 .....	3	Economics 453 .....	3
Business Management 451 .....	3	Economics 454 .....	3
Business Management 452 .....	3	Business Management 565 .....	2
		Business Management 567 .....	2
		Business Management 571 .....	3
		Business Management 574 .....	3

### MARKETING CONCENTRATION

The marketing course is designed to prepare students for positions of management and executive responsibility in the fields of industrial marketing, retailing, wholesaling, advertising, sales management, and market research. Requirements for a concentration in this area include both courses in Group A, one of the two courses in Group B, and two of the three courses in Group C.

Group A	Hours	Group C	Hours
Business Management 455 .....	3	Business Management 555 .....	3
Business Management 558 .....	3	Business Management 556 .....	3
Group B	Hours	Business Management 557 .....	3
Business Management 456 .....	3		
Business Management 457 .....	3		

### INDUSTRIAL MANAGEMENT CONCENTRATION

The industrial management concentration provides training for positions in industrial engineering, production control, purchasing, industrial relations, and the operating departments of industrial enterprises. In addition, it facilitates entry into executive trainee programs, the active management of small business, or the continuation of training in a graduate school of business.

Students electing a concentration in industrial management are required to complete the following program in addition to the college and departmental core:

Freshman, Sophomore, and Junior Years	Hours	Senior Year	
Math 111* .....	5	Business Management 561 .....	5
Math 112 .....	5	Business Management 562 .....	5
Math 213 .....	5	Statistics 432 .....	2
Physics 211** .....	4	Accounting 556 .....	3
Chemistry 105 .....	4		
Drawing 110 .....	2		

The following schedule is recommended:

Freshman Year			Junior Year		
	F	S		F	S
Economics 111, 112 .....	3	3	Physics 211 .....	4	
Math 111 .....		5	Chemistry 105 .....		4
English 111, 112 .....	3	3	Drawing 110 .....	2	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Economics 345 .....	3	
Health 130 .....	2		Accounting 342 .....		3
Religion .....	2	2	Bus. Mgt. 340 .....		3
History 170 .....		3	Bus. Mgt. 347 .....	3	
Group electives .....	5		Bus. Mgt. 348 .....		3
Total Hours .....	15 $\frac{1}{2}$	16 $\frac{1}{2}$	Bus. Mgt. 488, 489 .....	1	2
			Religion .....	2	2
			Group electives .....	2	
			Total Hours .....	17	17
Sophomore Year			Senior Year		
	F	S		F	S
Math 112, 213 .....	5	5	Bus. Mgt. 420 .....	3	
Statistics 221 .....	3		Bus. Mgt. 561, 562 .....	5	5
Accounting 201, 202 ....	3	3	Bus. Mgt. 589 .....		3
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Accounting 556 .....		3
Religion .....	2	2	Statistics 432 .....	2	
Group electives .....	2	5	Religion .....	2	2
Total Hours .....	15 $\frac{1}{2}$	15 $\frac{1}{2}$	Group electives .....	3	2
			Total Hours .....	15	15

\*Mathematics 111 should be taken in place of Accounting 131 and 132.

\*\*Students are encouraged to take Physics 212, General Physics Laboratory, with Physics 211.

## INDUSTRIAL RELATIONS AND PERSONNEL MANAGEMENT CONCENTRATION

The personnel management concentration is designed to prepare students for positions in the personnel and employee relations areas for marketing, financial, and manufacturing institutions in business.

Students electing a concentration in this area are required to take the basic courses in Group A and a minimum of five semester hours selected from Group B. These are the minimum requirements for preparation in this field. Students interested in further study are encouraged to consider taking the additional courses in Groups B and C.

Group A	Hours	Group C	Hours
Business Management 521 .....	3	Economics 462 .....	3
Business Management 569 .....	3	Journalism 561 .....	2
Economics 461 .....	3	Sociology 505 .....	3
<b>Group B</b>	<b>Hours</b>	Sociology 552 .....	3
Psychology 330 .....	2	Sociology 555	
Psychology 336 .....	4	or Psychology 555 .....	2
Sociology 357			
or Psychology 357 .....	3		
Sociology 350 .....	3		
Sociology 446 .....	3		

## Lower Division Course

**205. Personal Finance.** (2:2:0) F.S. (m) Staff

A practical course in money management with particular reference to utilization of savings.

## Upper Division Courses

303. **Managerial Control.** (3:3:0) F.S. (m) Prerequisites: Accounting 201, 202, and Statistics 221 or consent of instructor. Staff  
Emphasizes the understanding and use of accounting and other quantitative data for decision-making purposes.
340. **Industrial Organization and Management.** (3:3:0) F.S. (m) Prerequisites: Accounting 201, 202, and Statistics 221 or consent of instructor. Staff  
Introduction to the producing function of business. Plant location and layout, machinery and equipment utilization, employee-employer relations, and industrial control.
347. **Marketing Management.** (3:3:0) F.S. (m) Staff  
Analytical survey of institutions, functions, problems, and policies in the distribution of goods from producer to consumer. Includes treatment of pricing and governmental regulation.
348. **Financial Administration.** (3:3:0) F.S. (m) Prerequisites: Accounting 201, 202, and Statistics 221 or consent of instructor. Staff  
Introduction to principles governing financial administration of business enterprises.
420. **Human Relations in Administration I.** (3:3:0) F.S. (m) Prerequisite: senior standing or consent of instructor. Staff  
Case problems involving communication processes, face-to-face relationships, and the securing of cooperation are discussed to develop a way of understanding self and others.
450. **General Insurance.** (3:3:0) F. (m) Staff  
Life, health, accident, fire, property, and liability insurance and principles of risk-bearing as they apply to each classification of the insurance field.
451. **Investments.** (3:3:0) F.S. (m) Prerequisite: Business Management 348 or equivalent. Staff  
Analysis of operating and financial characteristics of industrial, public utility, railroad, financial, and real estate enterprises, and various federal, state, and municipal bodies.
452. **Commercial Bank Management.** (3:3:0) F.S. (m) Prerequisite: Business Management 348 or consent of instructor. Daines  
The commercial bank as a business organization with particular emphasis on the fundamental principles underlying the safe and profitable employment of commercial funds.
455. **Promotional Strategy.** (3:3:0) F.S. (m) Prerequisite: Business Management 347 or equivalent. Done  
Analysis of preparation, program, planning, media, budgeting, and research. Utilization by business emphasized, but attention also given to advertising institutions and to economic and social aspects.
456. **Retailing.** (3:3:0) F.S. (m) Prerequisite: Business Management 347 or equivalent. Sessions  
A survey of retail store operation from point of view of executive control, profit planning, merchandising, store location, layout, organization, policies, system, and coordination of store activities.
457. **Wholesaling and Industrial Marketing.** (3:3:0) F. (m) Prerequisite: Business Management 347 or equivalent. Done  
Principles, practices, and policies of business concerns engaged in movement of goods from manufacturer to retailer and from manufacturer to industrial user.
459. **Transportation Management.** (3:3:0) F. (m) Prerequisites: Business Management 340, 347, or consent of instructor. Sessions  
An examination of current problems of management in the transportation industries through discussion of cases and readings.

- 480, 481. Executive Lectures.** (1:1:0) S. (m) Staff  
Top executives from throughout the nation visit the campus and meet students in a series of lectures dealing with subjects significant to executive leadership.
- 488. Problems in Business Management I.** (1:1:0) F. (m) Prerequisites: Accounting 201, 202, Economics 112, Statistics 221, or permission of instructor. Staff  
An integrating case course involving all of the functional areas with particular emphasis on analysis and decision making.
- 489. Problems in Business Management II.** (2:2:0) S. (m) Prerequisite: Business Management 488 or permission of instructor. Staff  
A continuation of 488.

These courses also count in business management:

- B.E.O.M. 320. Business Writing and Reporting.** (2:2:0)  
**Statistics 432. Industrial and Engineering Statistics.** (2:2:0)  
**Statistics 433. Operations Research.** (2:2:0)

#### Advanced Undergraduate or Graduate Courses

- 521. Human Relations in Administration II.** (3:3:0) F.S. (m) Prerequisite: Business Management 420 or consent of instructor. Staff  
An illuminating conceptual framework for understanding group processes is developed to identify factors contributing to understanding, growth, and cooperation in group work and leadership.
- 552. Advanced Corporation Finance.** (3:3:0) F.S. (m) Prerequisite: Business Management 348 or consent of instructor. Daines  
Financial problems connected with organization or corporations, underwriting, and sale of securities; management, expansion, and organization of those that are not successful.
- 555. Problems in Advertising.** (3:3:0) S. (m) Prerequisite: Business Management 455 or consent of instructor. Done  
Problems in the use of advertising as part of management's overall marketing strategy. Stresses planning, coordination, control, and evaluation of effectiveness.
- 556. Problems in Retail Store Management.** (3:3:0) S. (m) Prerequisite: Business Management 456 or consent of instructor. Sessions  
Problems involved in policy formulation and implementation and in the coordination of store activities through the use of controls and standards.
- 557. Problems in Sales Management.** (3:3:0) F.S. (m) Prerequisite: Business Management 347 or consent of instructor. Pratt  
Problems in sales methods, sales organization, management of sales force (selection, training, compensation, and supervision), and sales planning and control.
- 558. Marketing Research.** (3:3:0) F.S. (m) Prerequisite: Business Management 347 or consent of instructor. Oaks  
Uses, methods, and techniques of marketing research.
- 559. Advanced Problems in Marketing Research.** (1-3:Arr.:Arr.) F.S. Prerequisites: Business Management 558 and consent of instructor. Oaks  
Advanced methods of research and their application to marketing problems.
- 561. Problems in Production—Manufacturing Processes.** (5:4:2) F. (m) Prerequisites: Business Management 585, Drawing 102, and senior or graduate standing in the department. Other by approval of instructor. J. Taylor  
Part one of a one-year course dealing with problems encountered by production personnel. Considers (1) the materials and manufacturing processes commonly used in industry; (2) process analysis as applied to work simplification and plant layout. Utilizes business cases, films, and field trips.

- 562. Problems in Production—Manpower Management and Production Control.** (5:6:0) S. (m) Prerequisite: Business Management 561. J. Taylor  
Part two of a one-year series. Deals with time study, job evaluation, wage administration, manpower planning, and production control.
- 565. Life Insurance.** (2:2:0) S. (m) Prerequisite: Business Management 450 or consent of instructor. Staff  
Advanced study of the nature and functions of life insurance and its application to personal and business needs.
- 566. Property and Casualty Insurance.** (2:2:0) S. (m) Prerequisite: Business Management 450 or consent of instructor. Staff  
Advanced study of the functions of fire and marine insurance, casualty insurance, and corporate building.
- 567. Real Estate Administration.** (2:2:0) S. (m) Prerequisite: Economics 454 or consent of instructor. Staff  
Mechanisms of real estate finance, principles or mortgage risk analysis, role of government agencies, and problems of property development.
- 569. Personnel Management.** (3:3:0) F.S. (m) Prerequisites: Economics 345 and Business Management 420, or permission of instructor. McKay  
Management of the personnel function: job evaluation, organization planning, employee selection, training, compensation, morale, labor relations, and management development. Method case analysis and research projects.
- 571. Management of Financial Institutions.** (3:3:0) S. (m) Prerequisite: Business Management 348. Daines  
Asset management of various types of financial institutions with special emphasis on loan policies and related problems.
- 574. Investment Management.** (3:3:0) S. (m) Prerequisite: Business Management 451. Staff  
Theory of investment management and its application in formulation of investment policies for different types of investors.
- 575. Advanced Production Methods.** (2:2:0) S. (m) Prerequisite: Business Management 561. J. Taylor  
Advanced methods work, automation, and the application of data processing to industrial operations.
- 576. Industrial Planning and Forecasting.** (2:2:0) S. (m) Prerequisite: Business Management 488. Staff  
Top management policy determination in the areas of production planning, planning of physical facilities, and organization planning as they are related to market and economic forecasts.
- 577. Business Enterprise and Moral Responsibility.** (2:2:0) F.S. (m) Prerequisite: senior standing. Pratt  
A case course in decision making areas involving conflicts of interest which necessitate reconciling economic objectives and fundamental goals of business.
- 579. Problems in Marketing.** (3:3:0) F.S. (m) Prerequisite: Business Management 347 or consent of instructor. Staff  
Analysis of problems in marketing management with particular emphasis on integrating the various functional areas.
- 585. Industry Analysis.** (3:3:0) F.S. (m) Prerequisite: Business Management 340 or consent of instructor. Staff  
Production characteristics of major industries. Large business units are studied in terms of sources of raw materials, production techniques, financial structure, degree of integration, stage of maturity, character of mechanization, government regulation, and possible future developments.
- 589. Business Policy.** (3:3:0) F.S. (m) Prerequisites: Business Management 489 and senior standing in the department. Staff

Cases involving determination of long range objectives in the business firm and the development of sound and consistent policies for achieving these objectives.

591. **Research and Diagnosis of Business Problems.** (1-2:Arr.:Arr.) F.S. Prerequisite: completion of or concurrent registration in Business Management 589. Staff

Provides experience in the research and diagnosis phase of case method. Includes preparation of cases from actual business situations.

These courses also count in business management:

Accounting 556. **Electronic Computer Programming.** (3:3:1)

Journalism 561. **Public Relations.** (3:3:0)

#### Graduate Courses for the Master of Business Administration Program

601. **Administration I and II.** (6:3:0) F.S. Prerequisite: admission to the M.B.A. program. Staff

605. **Administration III.** (3:3:0) F. Prerequisite: Business Management 601. Staff

607. **Administration IV.** (3:3:0) S. Prerequisite: Business Management 605. Staff

611. **Operations I and II.** (12:6:0) F.S. Prerequisite: admission to the M.B.A. program. Staff

615. **Operations III.** (3:3:0) F. Prerequisite: Business Management 611. Staff

617. **Operations IV.** (3:3:0) S. Prerequisite: Business Management 615. Staff

621. **Quantitative Analysis I and II.** (12:6:0) F.S. Prerequisite: admission to the M.B.A. program. Staff

625. **Quantitative Analysis III.** (3:3:0) F. Prerequisite: Business Management 621. Staff

627. **Quantitative Analysis IV.** (3:3:0) S. Prerequisite: Business Management 625. Staff

631. **Environment I and II.** (6:3:0) F.S. Prerequisite: admission to the M.B.A. program. Staff

635. **Environment III.** (3:3:0) F. Prerequisite: Business Management 631. Staff

637. **Environment IV.** (3:3:0) S. Prerequisite: Business Management 635. Staff

641. **Communication and Research I and II.** (4:Arr.:Arr.) F.S. Prerequisite: admission to the M.B.A. program. Staff

645. **Communication and Research III.** (3:Arr.:Arr.) F. Prerequisite: Business Management 641. Staff

647. **Communication and Research IV.** (3:Arr.:Arr.) S. Prerequisite: Business Management 645. Staff

699. **Thesis for Master of Science or Arts Degree.** (1-6:Arr.:Arr.) F.S. Staff

**Associate Professors:** Barker (chairman, 176 ELB), Christensen.

**Assistant Professor:** Smoot.

## Chemical Engineering Science



Chemical engineering is the application of the basic principles of physics, chemistry, mathematics, economics, and human relations to the development and design of chemical processes. These processes are used to effect changes in materials making them more valuable or more useful to the human race. Chemical engineers engage in research, development, design, construction, production supervision, plant technical services, and product sales. They find employment in a wide variety of fields, such as chemicals, petroleum, atomic energy, rocketry, textiles, water purification, metals, and plastics. Students majoring in chemical engineering science may anticipate receiving, in addition to a comprehensive training in engineering, a thorough education in the fundamental physical sciences including physics, mathematics, and chemistry. This training will enable the student upon graduation to enter numerous academic or industrial fields which are open to persons having this broad educational background.

### Entrance Requirements

For both the general entrance requirements of the University and the particular requirements specified for the College of Physical and Engineering Sciences, see those sections of this catalog. The student first enrolls for two years in the pre-engineering course. This is outlined in the College of Physical and Engineering Science section of this catalog. After completion of this work and upon application, he will be admitted to the professional course in chemical engineering.

### Grade Requirements

See the College of Physical and Engineering Science section of this catalog for grade requirements for admission to professional school.

A cumulative average grade of "C" or better must be maintained in all advanced mathematics, chemistry, and engineering subjects; otherwise the student is placed on a probationary status in the department. Not more than four hours of "D" credit in the major department will be counted toward graduation. An overall grade point of at least "C" is required for graduation.

### Requirements of Major and Options

To obtain a degree in chemical engineering, the student must complete the program described below. Students enrolled in the air science program will normally be required to spend an extra summer to complete their work in five years. These students should consult with the personnel of the air science program.

A student who wishes to obtain some specialization in a supporting field such as applied mathematics, business, chemistry, nuclear engineering, or space

engineering may substitute restricted elective courses for certain courses listed below. All requests for changes must be made in writing to the student's adviser and will be acted on by the department.

Students who wish to develop a background oriented more to the basic sciences may substitute certain courses in physics for civil engineering and electrical engineering subjects.

The listings of the optional courses as well as those courses which can be used as restricted electives are available from the department.

The following abbreviations are used: Ch.E. for chemical engineering, C.E. for civil engineering, E.E. for electrical engineering, and M.E. for mechanical engineering.

### General Education Group Requirements

Engineering science students are subject to all of the general education requirements listed in this catalog with the following exceptions:

- (1) They may take the required course in health any time during the first or second year.
- (2) The biological science requirement may be reduced to four semester hours instead of the six semester hours specified. All of these may be obtained in a single course if desired.
- (3) Maximum advantage should be taken of the three hours of religion credit given for attending devotional assemblies for a period of three years.

Engineering students may register for 18 hours, exclusive of physical education, forum, and devotional in any one semester without obtaining special permission.

### SEQUENCE OF COURSES FOR MAJORS

#### Pre-Engineering

See College of Physical and Engineering Science section of this catalog.

#### Professional School of Chemical Engineering

First Year Professional (Third Year)							
	F	S					
Ch.E. 371, 372 .....	2	2		Chemistry 464, 465 .....	1	1	
Ch.E. 378 .....		3		Restricted electives .....	3		
Chemistry 351, 352 .....	3	3		Group electives .....	4	5	
Chemistry 354, 355 .....	1	1		Total Hours .....	17	18	
Math 336, 315 .....	3	3					
C.E. 301, 303 .....	3	3		Third Year Professional (Fifth Year)			
Economics 111 .....	3				F	S	
Religion .....	3	2		Ch.E. 571 .....	3		
Total Hours .....	18	17		Ch.E. 574 .....		3	
				Ch.E. 576 .....	3		
Second Year Professional (Fourth Year)				Ch.E. 578 .....	3		
Ch.E. 471, 472 .....	3	3		Ch.E. 579 .....		3	
Ch.E. 473, 474 .....	3	3		Ch.E. 599 .....	2	1	
Ch.E. 475 .....		3		E.E. 301, 302, .....	4	4	
Chemistry 461, 462 .....	3	3		Group electives .....	3	3	
				Restricted electives .....		3	
				Total Hours .....	18	17	

#### Lower Division Course

- 271. Introduction to Chemical Engineering.** (1:1:0) S. Staff  
Includes introduction to process calculations, lectures on professional development, and field trips to selected chemical industries.

## Upper Division Courses

- 371, 372. Chemical Process Principles.** (2:2:0) F.S. Prerequisites: Chemistry 113 and Physics 213. Smoot  
Stoichiometry, material balances, energy balances, thermochemistry, thermophysics. Application to chemical processes.
- 378. Engineering Materials.** (3:3:0) F.S. Prerequisite: Chemistry 106 or 113. Barker, Christensen  
Principles which underlie the behavior and govern the properties of materials as related to their engineering applications.
- 471. Introduction to Transport Phenomena.** (3:3:0) F. Prerequisites: Chemical Engineering 372, Math 313, 336. Barker, Smoot  
Theories of heat, momentum, and mass transfer, and analogies among these transport mechanisms. Molecular and turbulent mechanisms; steady and unsteady state applications.
- 472. Unit Operations.** (3:3:0) S. Prerequisite: Chemical Engineering 471. Barker, Smoot  
Applications of transport principles to problems of heat transfer and fluid flow.
- 473, 474. Chemical Engineering Thermodynamics.** (3:3:0) F.S. Prerequisites: Chemical Engineering 372, Math 336, and concurrent registration in Chemistry 461. Christensen  
The first and second laws of thermodynamics and their applications to the behavior of real fluids. Thermodynamic properties of materials, potential functions, and chemical equilibria.
- 475. Chemical Engineering Laboratory.** (3:1:4) S. Prerequisites: Chemical Engineering 471, 473, and concurrent registration in Chemical Engineering 571. Staff  
Laboratory studies of unit operations including absorption, extraction, distillation, humidification, drying, filtration, sedimentation. Comprehensive reports are required.
- 571. Unit Operations.** (3:3:0) F. Prerequisite: Chemical Engineering 472. Barker, Smoot  
Fundamentals of stage operations. Applications of transport principles to such mass transfer operations as humidification, drying, crystallization, distillation, extraction, absorption.
- 576. Chemical Engineering Laboratory.** (3:1:4) F. Prerequisites: Chemical Engineering 475 and concurrent registration in Chemical Engineering 571. Staff  
Laboratory studies of unit operations including absorption, extraction, distillation, humidification, drying, filtration, sedimentation. Comprehensive reports are required.
- 578. Chemical Engineering Kinetics.** (3:3:0) F. Prerequisites: Chemical Engineering 474 and Chemistry 462. Christensen  
Theories and applications of chemical kinetics in catalytic and non-catalytic reacting systems.
- 579. Process Dynamics and Unit Processes.** (3:3:0) S. Prerequisite: Math 334 or instructor's permission. Barker  
A fundamental study of the measurement and control of process variables. The characteristics of processes, controllers, measuring elements, and the application of closed loop techniques.
- 598. Special Problems.** (Arr.) F.S.Su. Staff  
Registration by permission.
- 599. Chemical Engineering Undergraduate Thesis.** (1-2:Arr.:Arr.) F.S. Su. Staff  
An undergraduate thesis required of all students graduating from the department. Minimum of 3 semester hours required.

## Graduate Courses

671. **Advanced Heat Transfer.** (2:2:0) F. Barker, Christensen  
An advanced treatment of the transfer of heat with emphasis on applications of engineering interest.
672. **Advanced Fluid Flow.** (2:2:0) F. Barker, Christensen  
An advanced treatment of the flow of fluids with emphasis on application of engineering interest.
673. **Advanced Transport Phenomena.** (3:3:0) F. Smoot  
Derivation and application of the general differential equations for transport for momentum, heat, and mass. Methods of estimating transport coefficients. Application of the kinetic theory to transport mechanisms.
674. **Advanced Thermodynamics.** (2:2:0) S. Christensen  
Advanced applications of thermodynamics to chemical engineering problems. Estimation and correlation of thermodynamics properties; chemical equilibrium and introduction to statistical thermodynamics.
675. **Separation Processes.** (3:2:3) Arr. Smoot  
Absorption and extraction; interphasial mass transfer, multi-component systems, simultaneous absorption and chemical reaction; design of equipment.
676. **Seminar.** (0:1:0) F.S. Staff  
Discussion of advanced topics including the plans and results of the master's thesis.
681. **Kinetics and Catalysis.** (2:2:0) Arr. Christensen  
Application of fundamental theories of reaction kinetics, diffusion, and absorption to catalytic and non-catalytic reacting systems.
682. **Nuclear Engineering.** (2:2:0) Arr. Barker  
Reactor design including reactor physics, heat transfer, engineering materials, instrumentation, and control.
683. **Advanced Plant Design.** (2:2:0) Arr. Staff  
Comprehensive design of a chemical plant including feasibility and market surveys, economic evaluation, raw materials, plant location, plant layout, design, instrumentation, materials of construction.
684. **Advanced Process Dynamics and Control.** (2:1:3) Arr. Barker  
The dynamics of chemical processes, the measurement of process variables, and the control of processes using feed-back control.
685. **Chemical Engineering Analysis.** (2:2:0) Arr. Smoot  
Mathematical analysis of selected topics in unit operations and unit processes.
686. **Distillation.** (2:2:0) Arr. Staff  
Binary and multicomponent distillation, prediction of equilibrium relationships, extractive and azeotropic distillation, application of computers to complex distillation column design; instrumentation.
687. **Chemical Engineering Economics.** (2:2:0) Arr. Staff  
An investigation into the basic economic principles which govern the operations of the chemical industry.
688. **Special Problems.** (Arr.) Arr. Staff  
Investigation of problems of special interest in the field of chemical engineering.
697. **Research.** (Arr.) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) Arr. F.S.Su. Staff

## Chemistry

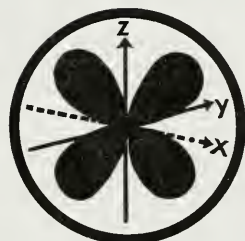
**Professors:** Swensen (chairman, 225 ESC), Anderson, Blackham, Broadbent, Bryner, Goates, Gubler, Hall, Nelson, Nicholes.

**Special Professor:** Vernon.

**Associate Professors:** Butler, Izatt, Peterson.

**Assistant Professors:** Cluff, Hawkins, Ott, Snow, White, Wing.

**Supt. of Laboratories and Stores:** Meibos.



The department offers four beginning programs in chemistry. The first three are terminal programs: Chemistry 100 for students interested in chemistry for a liberal arts education only; Chemistry 101 and 102 for non-physical science majors whose discipline requires a supporting background in chemistry; Chemistry 105 and 106 for engineering students (except chemical engineering students); and Chemistry 111, 112, 113 for chemistry and chemical engineering majors and all others desiring a strong foundation for subsequent extensive study of chemistry such as may be required in physics, biological sciences, medicine, dentistry, and the teaching of science.

A major in chemistry shall consist of a minimum of 42 hours credit, including credit in each of the following courses: Chemistry 111, 112, 113, 321, 322, 351, 352, 354 (2 hours), 355 (2 hours), 461, 462, 464, 465, 494, 495, 581. The remainder of the credit may be obtained by taking any other upper division chemistry courses. It is recommended, however, that the additional courses be taken from the following list: Chemistry 404, 504, 514, 551, 580, 581, 582, 584, 585, 592. One year of college credit (or its equivalent) in French, German, or Russian is required. The student who desires to be certified upon graduation by the American Chemical Society should consult his adviser for details. No more than five hours of "D" chemistry will be counted in meeting the requirements for any of the majors in chemistry. Credit in Chemistry 100, 101, 102, 221, 284, all designed as service courses for students in other areas, will not apply toward a major in chemistry.

A major in pre-medical or pre-dental chemistry shall consist of a minimum of 30 hours credit in the following courses: Chemistry 111, 112, 113, 321, 351, 352, 354, 355, 461, 462, 464, and 465. These majors are open only to bona fide pre-medical and pre-dental students.

A chemistry teaching major shall consist of a minimum of 32 hours credit in courses selected from the following list: Chemistry 111, 112, 113, 321, 322, 351, 353, 354, 355, 461, 462, 504, 514, 581, 584, and 591. A chemistry teaching major is open only to those who meet the requirements for teacher accreditation by the State of Utah.

Chemistry and chemical engineering majors accepted by the University Honors Program will begin their study by registration in any section of Chemistry 111. Upon its completion, and with the recommendation of the department honors committee, they may register for Chemistry 118, followed by Chemistry 328. These courses are equivalent in content to, and taken in lieu of, Chemistry 112, 113, 321, and 322. Selections may also be made by the committee from students taking Chemistry 113 and permission given them to register for Chemistry 328.

For special requirements of the College of Physical and Engineering Sciences, see that section of this catalog. Attention is called especially to the preparation required in mathematics and to the possibility of substituting air science credit for general education credit.

For details concerning the program for graduate study leading to the M.S. and Ph.D. degrees in chemistry, students should consult the Graduate School Catalog.

### Suggested Curriculum for a Chemistry Major

Freshman Year			Junior Year		
	F	S		F	S
Chemistry 111, 112 .....	4	3	Chemistry 322 .....	4	
Math 111, 112 .....	5	5	Chemistry 351, 354 .....	5	
English 111, 112 .....	3	3	Chemistry 352, 355 .....		5
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Math 313, 336 .....	3	3
Health 130 .....		2	Religion .....		3
Religion .....	2	2	German 101, 102 .....	4	4
General education and electives .....	3	2	General education and electives .....	2	3
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	18	18

Sophomore Year			Senior Year		
	F	S		F	S
Chemistry 113, 321 .....	3	4	Chemistry 461, 464 .....	4	
Math 213, 334 .....	5	3	Chemistry 462, 465 .....		4
Physics 211, 213 .....	5	5	Chemistry 494, 495 .....	0	0
Religion .....	2	2	Chemistry 504 .....		2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Chemistry 514 .....		3
General education and electives .....	2	4	Chemistry 591 .....	1	
Total Hours .....	17 $\frac{1}{2}$	18 $\frac{1}{2}$	German 385, 386 .....	3	3
			Religion .....	2	3
			Electives .....	7	3
			Total Hours .....	17	18

### Lower Division Courses

**100. Elementary College Chemistry.** (2:2:0) F.S.Su. (G-PS) Staff  
An introduction to the structure of matter and the chemical consequences of that structure. For nonscience majors in partial fulfillment of the general education requirement for graduation and for science majors who require additional background in order to register for Chemistry 111.

**101, 102. Introductory Chemistry.** (5-4:5:4-2 ea.) F.S. (G-PS m) Staff  
General principles of inorganic and organic chemistry for non-physical science majors whose discipline requires a supporting background in chemistry. Not recommended for those who contemplate extending their studies in those areas beyond the baccalaureate degree.

**104. Elementary Chemistry Laboratory.** (1:0:2) F.S. (G-PS m)  
For students who desire laboratory experience in chemistry to accompany Chemistry 100. For students taking Chemistry 111 who have had no previous experience in laboratory work in chemistry or physics either in high school or college.

**105. 106. General College Chemistry.** (4:4:2 ea.) (G-PS m) Prerequisite: completion of or concurrent registration in Mathematics 111 or its equivalent. High school chemistry or physics is recommended. On the basis of the results of placement tests, students may be required to complete Chemistry 100 prior to registration in this course. Staff

A terminal course in chemistry designed for engineering and other technical areas. Three lecture periods, one quiz period, and one two-hour laboratory period per week.

- 111. Principles of Chemistry.** (4:5:0) F.S.Su. (G-PS m) Prerequisite: completion of or concurrent registration in Mathematics 111 or its equivalent. High school chemistry or physics is recommended. On the basis of the results of placement tests, students may be required to complete Chemistry 100 prior to registration in this course. Staff  
A non-terminal course in fundamental principles for those who plan to continue their study of chemistry beyond the freshman year. Four lecture periods and one quiz period each week.
- 112. Principles of Chemistry.** (3:3:3) F.S.Su. (G-PS m) Prerequisite: Chemistry 111. Staff  
Two lecture periods, one quiz period, and one three-hour laboratory period each week.
- 113. Principles of Chemistry and Qualitative Inorganic Analysis.** (3:2:6) F.S. (m) Prerequisite: Chemistry 112. Staff  
One lecture period, one quiz period, and two three-hour laboratory periods each week.
- 118. Inorganic Chemistry and Qualitative Inorganic Analysis (Honors Section).** (5:3:6) S. (m) Prerequisites: Chemistry 111 and consent of departmental honors committee. Izatt  
Designed for honors students. Gives a penetrating coverage of the material in Chemistry 112 and 113.
- 220. Elements of Quantitative Analysis.** (3:2:3) F. (m) Prerequisite: Chemistry 102. Staff  
Quantitative analysis adapted to the needs of students in medical technology and of others interested in biological and food materials. (This course will not satisfy pre-medical or pre-dental requirements.)
- 221. Quantitative Analysis.** (3:2:4) F.S.Su. (m) Prerequisite: Chemistry 113. Butler, Wing  
For agricultural and biological science majors.
- 228. Fire Assaying.** (2:1:3) F. (m) Prerequisite: Chemistry 113. Wing
- 284. Physiological Chemistry.** (4:3:3) S. (m) Prerequisite: Chemistry 102 or 106. Bryner, Gubler, Swensen, White

#### Upper Division Courses

- 301. Fundamentals of Chemistry for General Science Teachers.** (2:2:0) Su. Staff  
Restricted to experienced teachers of general science or similar subjects.
- 321, 322. Analytical Chemistry.** (4:2:6 ea.) F.S. Prerequisites: Chemistry 113 and Mathematics 112. Butler, Wing  
For physical science and engineering majors. Includes a formal introduction to the location and use of chemical literature.
- 328. Analytical Chemistry (Honors Section).** (5:3:6) F. Prerequisites: Chemistry 118 and consent of department honors committee. Butler  
Equivalent to Chemistry 321 and 322.
- 351. Organic Chemistry.** (3:3:0) F.S.Su. Prerequisite: Chemistry 113 or consent of instructor, and concurrent registration in Chemistry 354 and 355 respectively. (By special permission of the instructor prior to registration, Chemistry 352 may be taken without concurrent registration in Chemistry 355). Blackham, Broadbent, Hawkins, Nelson  
For science and engineering majors. Includes the use of the literature of organic chemistry and some qualitative organic analysis.
- 354, 355. Organic Chemistry Laboratory.** (1-2:0:3-6 ea.) F.S.Su. Prerequisite: concurrent registration in Chemistry 351 and 352 respectively. Blackham, Broadbent, Hawkins, Nelson

404. **Methods of Glass Manipulation.** (1:0:3) F.S. Prerequisite: permission of instructor. Bryner
- 461, 462. **Physical Chemistry.** (3:3:0 ea.) F.S. Prerequisites: Chemistry 321; Physics 213; and Mathematics 213; concurrent registration in Chemistry 464 and 465, respectively. Anderson, Bryner, Snow
- 464, 465. **Physical Chemistry Laboratory.** (1:0:3) F.S. Prerequisite: completion of or concurrent registration in Chemistry 461, 462, respectively. Anderson, Bryner, Snow
- 494, 495. **General Seminar.** (0:1:0) Required of all chemistry major seniors. Staff

#### Advanced Undergraduate or Graduate Courses

500. **History of Chemistry.** (2:2:0) S. Nicholes
503. **Research Laboratory Techniques.** (1:0:3) F. Staff
504. **Instrumental Analysis.** (2:1:3) F.S. Prerequisites: Chemistry 461, 464. Butler, Goates, Ott
514. **Inorganic Chemistry.** (3:3:0) S. Prerequisites: Chemistry 221 or 321 and Chemistry 351. Cluff, Izatt, Peterson
518. **Inorganic Syntheses.** (2:0:6) (Offered 1963-64 and alternate years) Cluff, Izatt, Peterson
524. **Quantitative Microanalysis.** (2:1:3) S. (Offered 1962-63 and alternate years) Wing
551. **Qualitative Organic Analysis.** (2-3:1:3-6) F. Blackham, Broadbent, Hawkins, Nelson  
Systematic identification of organic compounds singly and in mixtures.
580. **Metabolic Processes.** (2:2:0) S. Prerequisites: Chemistry 352 and 461. Gubler, Swensen, White  
For non-biochemistry majors only. Provides an insight into the important area of biochemistry for those who will not otherwise contact it.
- 581, 582. **Biochemistry.** (3:3:0 ea.) F.S. Prerequisites: Chemistry 321 or 221, and 352 and 355. Gubler, Swensen, White
- 584, 585. **Biochemistry Laboratory.** (2:0:6 ea.) F.S. Prerequisites: completion of or concurrent registration in Chemistry 581, 582, respectively. Gubler, Swensen, White
- 591, 592. **Chemical Literature and Technical Writing.** (1:1:0 ea.) F.S. Broadbent, Nelson
- 594, 595. **General Seminar.** (0:1:0) F.S. Staff  
Required of all first year graduate students in chemistry.
598. **Special Problems.** (Arr.) Arr. Staff  
Registration by permission.

#### Graduate Courses

601. **Geometry of Atoms and Molecules.** (3:3:0) F. Blackham, Broadbent, Hawkins, Nelson
612. **Chemistry of the Non-Metals.** (2:2:0) F. (Offered 1962-63 and alternate years) Cluff, Izatt
613. **Chemistry of the Metals.** (2:2:0) F. (Offered 1963-64 and alternate years) Cluff, Izatt
621. **Advanced Analytical Chemistry.** (2:2:0) S. Butler

652. **Advanced Organic Chemistry.** (3:3:0) S.  
Blackham, Broadbent, Hawkins, Nelson
658. **Organic Syntheses.** (3:1:6) F. Blackham, Broadbent, Hawkins, Nelson
661. **Chemical Thermodynamics.** (3:3:0) F. Goates, Ott, Snow
662. **Chemical Thermodynamics.** (2:2:0) S. Goates, Ott, Snow
663. **Reaction Kinetics.** (2:2:0) S. Goates, Ott, Snow
- 681, 682. **Biochemistry of Carbohydrates, Lipids and Proteins.** (3:3:0 ea.) F.S.  
(Offered 1962-63 and alternate years) Gubler, Swensen, White
- 694, 695. **General Seminar.** (0:1:0) F.S. Staff
697. **Master's Candidate Research.** (Arr.) Arr. Staff
699. **Thesis for Master's Degree.** (Arr.:Arr.:0) F.S. Staff
711. **Coordination Compounds.** (2:2:0) F. (Offered 1962-63 and alternate years)  
Izatt
719. **Selected Topics in Inorganic Chemistry.** (1-3:1-3:0) Arr. Staff
725. **Electro-analytical Chemistry.** (3:3:0) F. (Offered 1962-63 and alternate years)  
Butler
729. **Selected Topics in Analytical Chemistry.** (1-3:1-3:0) Arr. Staff
751. **Mechanisms of Organic Reactions.** (3:3:0) F.  
Blackham, Broadbent, Hawkins, Nelson
757. **Chemistry of Natural Products.** (3:3:0) S. (Offered 1962-63 and alternate years)  
Broadbent
758. **Heterocyclic Compounds.** (3:3:0) S. (Offered 1963-64 and alternate years)  
Broadbent
759. **Selected Topics in Organic Chemistry.** (1-3:1-3:0) Arr. Staff
- 761, 762. **Statistical Mechanics.** (3:3:0 ea.) F.S. (Offered 1962-63 and alternate years)  
Snow
764. **Nuclear and Radiochemistry.** (3:2:2) S. (Offered 1963-64 and alternate years)  
Anderson
- 765, 766. **Quantum Chemistry.** (3:3:0 ea.) F.S. (Offered 1963-64 and alternate years)  
Snow
769. **Selected Topics in Physical Chemistry.** (1-3:1-3:0) Arr. Staff
781. **Enzyme Chemistry.** (2-3:2:0-3) F. (Offered 1963-64 and alternate years)  
Swensen, White
782. **Biological Oxidation.** (2:2:0) S. (Offered 1963-64 and alternate years)  
White
- 794, 795. **General Seminar.** (0:1:0) F.S. Staff
797. **Doctoral Candidate Research.** (Arr.) Arr. Staff
799. **Dissertation for the Ph.D. Degree.** (Arr.) Arr. Staff

## Civil Engineering Science



**Professors:** Rollins, Firmage, Fuhrman.

**Associate Professor:** Barton (chairman, 121 ELB).

**Assistant Professor:** Karren.

**Instructors:** Coombs, Tippetts, Wilkes, Wilson.

This department offers a professional program leading to the degree of Bachelor of Engineering Science in civil engineering. Advanced work is also offered leading to a Master of Science degree. Course work is offered in the areas of mechanics, structures, hydrology, hydraulics, soil mechanics, highways, and municipal and sanitary engineering.

Training at B.Y.U. places emphasis on the science foundations of mathematics, physics, and chemistry. The student is provided also with a well-balanced program of social studies, religion, biological science and humanities.

The extensive background of the faculty will prove valuable to those who wish to undertake special projects in their undergraduate work or research topics in their graduate work. Seminar work and participation in technical meetings sponsored by student organizations provide a rich beginning to a career in civil engineering. Professional opportunities in this field exist in research, development, design, sales and application engineering, teaching, and business management.

### Entrance Requirements

For both the general entrance requirements of the University and the particular requirements specified for the College of Physical and Engineering Sciences, see those sections of this catalog. The student first enrolls in the pre-engineering course. This is outlined in the College of Physical and Engineering Science section. After satisfactory completion of this work and upon application he will be admitted to the professional course in civil engineering.

### Grade Requirements

See the College of Physical Engineering and Science section of this catalog for grade requirements for admission to professional school.

A cumulative average grade of "C" or better must be maintained in all advanced mathematics and engineering subjects; otherwise, the student is placed on a probationary status in the department. No more than six hours of "D" credit in the major department will be counted toward graduation.

### Requirement of Major

The degree of Bachelor of Engineering Science may be obtained by completing the program outlined below. Students enrolled in air science will normally be required to spend an extra summer in order to finish their program.

It is possible for students to take course work during the last year of the program that may be applied to a graduate degree. Such action requires advanced

application and approval, and restricts the total overall load to 16 credit hours. The department chairman should be consulted for further details.

The following abbreviations are used: Ch.E. for chemical engineering, C.E. for civil engineering, E.E. for electrical engineering, and M.E. for mechanical engineering.

### General Education Group Requirements

Engineering science students are subject to all of the general education requirements listed in this catalog, with the following exceptions and comments:

- (1) They may take the required course in health any time during the first or second year.
- (2) The biological science requirement may be reduced to four semester hours instead of the six semester hours specified. All of these may be obtained in a single course if desired.
- (3) Maximum advantage should be taken of the three hours religion credit given for attending devotional assemblies for a period of three years.
- (4) It is particularly recommended that the student take Economics 101, Psychology 111, or Sociology 111 in satisfying the social science group requirements.

Engineering students may register for 18 hours, exclusive of physical education, forum, and devotional in any one semester without obtaining special permission.

### NORMAL SEQUENCE OF COURSES FOR MAJORS

#### Pre-Engineering Program

See College of Physical and Engineering Science section of this catalog.

#### Professional School of Civil Engineering

First Year Professional (Third Year)					
	F	S			
C.E. 303, 302 .....	3	3	C.E. 413 .....	2	
C.E. 321 .....		2	Ch.E. 378, C.E. 401 .....	3	2
M.E. 321, 412 .....	3	4	C.E. 441 .....	3	
Math 313 .....	3		Religion .....	2	2
Geology 111 .....		4	General education .....	2	4
Bacteriology 121** .....	3		Total Hours .....	18	18
Religion .....	2	2			
General education .....	3	3			
Total Hours .....	17	18			
Second Year Professional (Fourth Year)			Third Year Professional (Fifth Year)		
	F	S		F	S
C.E. 422 .....	2		C.E. 403 .....	3	
C.E. 423, 424 .....	3	3	C.E. 542 .....		3
C.E. 431, 432 .....	3	3	C.E. 525 .....	3	
Bacteriology 381** .....		2	C.E. 551, 561 .....	3	3
			C.E. 571 .....		3
			E.E. 301, 302 .....	4	4
			General education .....	2	2
			Total Hours .....	15	15

\*\*Civil engineers must take five credit hours of bacteriology.

#### Lower Division Courses

101. **Engineering Graphics.** (2:1:4) F.S. Staff  
 Materials and instruments in engineering drawing, introductory practice in orthographic projection; transfer of pictorial sketches and machine part samples to scaled drawing; reproduction processes; and drawing principles.

- 102. Engineering Graphics.** (2:1:4) F.S. Prerequisites: Math 111, C.E. 101 or equivalent. Staff  
Graphics principles, including descriptive geometry, projections, perspective applications, and developments.
- 203. Engineering Graphics.** (2:1:4) F.S. Prerequisites: C.E. 102, Math 112 or consent of instructor. Staff  
Graphical mathematics, empirical equations, nomography, graphical calculus, graphic statics.
- 211. Elementary Surveying.** (3:2:3) F. Prerequisites: Math 111, C.E. 102 or consent of instructor. Staff  
Lectures and field work in measurements of distances, angles, and differences of elevation using the usual survey methods and instruments; preparation of notes; adjustments; simple triangulation and traverses; and use of the plane table.
- 212. Engineering Surveying.** (2:1:3) S. Prerequisite: C.E. 211. Staff  
More advanced concepts in survey theory, including curve and earthwork survey and astronomical observations. Emphasis on engineering uses of survey techniques.

### Upper Division Courses

- 301. Engineering Mechanics—Statics.** (3:2:3) F.S. Prerequisites: college physics, C.E. 203, and Math 213. Staff  
Introductory concepts of mechanics, force systems, and problems of equilibrium applied to structures, centers of gravity and centroids, elementary hydrostatics, friction in engineering problems, beam problems, and virtual work.
- 302. Engineering Mechanics—Dynamics.** (3:2:3) F.S. Prerequisite: C.E. 301. Staff  
Definitions and principles of kinematics and kinetics; engineering applications in terms of force, mass acceleration, work and energy, impulse and momentum, periodic motion.
- 303. Engineering Mechanics—Mechanics of Materials.** (3:2:3) F.S. Prerequisite: C.E. 301. Staff  
Fundamental concepts in terms of elastic stress and strain relations; cylinders and spheres under pressure; problems of torsional load; beam theory including bending stresses, complex stress, calculation of deflection and continuity aspects, two-dimensional elastic theory.
- 304. Engineering Mechanics—Dynamics.** (3:2:3) F.S. Prerequisites: C.E. 301, Math 313, 334. Staff  
Basic concepts of dynamics applied to particles, systems of particles, rigid bodies vibration systems, non-rigid particles systems and an introduction to selective topics in advanced methods in dynamics. Vector notations used in the treatment of all topics.
- 321. Elementary Structural Theory.** (2:2:0) S. Prerequisite: C.E. 301. Firmage  
Theory of statically determinate structures; force systems; analysis of trusses and frames; influence diagrams; loads on structures, approximate methods of analysis of indeterminate structures.
- 401. Properties of Materials.** (2:1:3) F.S. Prerequisite: C.E. 303 or consent of instructor. Barton, Staff  
Theories and procedure of physical testing of materials, introduction to failure theories and solid state concept of behavior of materials; the mechanics of deformation.
- 403. Concrete Technology.** (3:2:3) F. Prerequisite: Geology 111. Wilson  
Manufacture and testing of cements; technology of concrete materials and concrete mix design; techniques of concrete handling, placing, and treatment, laboratory work.

- 413. Photogrammetry.** (2:1:3) F. Prerequisite: C. E. 212. Staff  
Theory and application of the use of terrestrial and aerial photographs to produce maps; vertical and oblique photography and mapping procedures; stereoscopic viewing and measurements for relative position of objects in three dimensions, photo interpretation, sources of error.
- 422. Statically Indeterminate Structures.** (2:2:0) F. Prerequisite: C.E. 321. Firmage, Karren  
Stability and determinateness of structures; deflections, moment-area and conjugate beam, moment-distribution.
- 423. Structural Design.** (3:2:3) F. Prerequisite: C.E. 321. Firmage  
Design of structural elements in metal—beams, columns, tension member, plate girders—and riveted, welded, and belted joints.
- 424. Reinforced Concrete Design.** (3:2:3) S. Prerequisites: C.E. 321, 422. Firmage, Karren  
Theory and design of reinforced concrete structures from both the elastic and plastic approach. Introduction to prestressed concrete.
- 431. Hydrology.** (3:2:3) F. Prerequisite: M.E. 412. Fuhriman  
Water as it occurs in nature; relationships between precipitation, evaporation, infiltration, transpiration, groundwater, and stream runoff.
- 432. Hydraulic Design.** (3:2:3) S. Prerequisites: M.E. 412, C.E. 423 and 431. Fuhriman  
Theory and design of water control and water conveyance structures such as dams, pipe-lines, open channels, and hydraulic transitions.
- 441. Elementary Soil Mechanics.** (4:3:3) F. Prerequisites: Geology 111, C.E. 303, M.E. 412. Rollins  
Basic physico-chemical characteristics of soils. The soil water system. Permeability seepage and associate uplift pressures. Consolidation theory, strength theory and the shearing strengths of sand and clay. Earth pressure theories, slope stability analysis and applied aspects.
- 525. Advanced Structures.** (3:2:3) F. Prerequisites: C.E. 422, 424. Firmage  
Theory and design of statically indeterminate structures, redundant frames, strain energy methods, Castigliano's theorems, slope-deflection equations, and special topics in advanced structural design.
- 542. Foundation Engineering.** (3:2:3) S. Prerequisite: C.E. 441. Rollins  
Subsurface exploration, bearing capacity concepts, settlement of structures and basic principles of foundation design.
- 551. Sanitary Engineering.** (3:2:3) F. Prerequisites: C.E. 432, Bacteriology 381. Fuhriman  
Review of public health engineering. Applications to design, construction, and operation of water supply and sewerage systems.
- 561. Highway Engineering...** (3:2:3) S. Prerequisite: C.E. 542. Rollins  
Traffic studies, geometric design grade separations, and interchanges. Properties subgrades, base courses, bituminous materials, and surface pavements. Theory and practice in flexible pavement design. Design of concrete pavements, techniques of road construction.
- 571. Engineering Ethics, Economics, and Legal Problems.** (3:3:0) Arr. Staff  
Professional, legal, and economic problems of the engineering profession, including contracts, specification writing, and ethics. Case histories are studied as they affect the engineering profession.

#### Advanced Undergraduate or Graduate Courses

- 501. Advanced Mechanics of Materials I.** (3:3:0) Arr. Prerequisite: C.E. 303. Staff  
Introduction to theories of elasticity, plasticity, and strain energy meth-

ods; stresses and strains in beams, curved members, rotating discs, thick cylinders, torsion and structural members.

- 503. Applied Elasticity.** (3:3:0) Arr. Prerequisites: C.E. 303; Math 313, 334.

Staff

Analysis of stress and strain in two dimensions; equation of equilibrium and compatibility; problems in elasticity; emphasis on applications to machine and structural design.

- 507. Experimental Stress Analysis I.** (3:2:3) Arr. Prerequisite: C.E. 303. Staff

Principles and techniques of the experimental methods of stress determination and their application to static engineering problems; includes mechanical and optical gages, and brittle lacquers; emphasizes electric strain gages, calibration and instrumentation; introduces photoelasticity and photostress techniques.

- 526. Advanced Structural Theory.** (3:2:3) Arr. Prerequisites: C.E. 422, 424.

Staff

Continued analytical methods in structural mechanics, iterative processes; solutions of complex structural types; arches; secondary stress.

- 531. Advanced Hydraulic Design.** (3:2:3) Arr. Prerequisites: C.E. 424, 431, and 432. Staff

Planning and basic design of hydro-electric, flood control, irrigation, and multi-purpose projects involving the utilization of water resources; consideration of hydraulic and hydrologic design elements.

- 543. Physico-Chemical Characteristics of Soils.** (3:3:0) Arr. Prerequisites: Chemistry 106, C.E. 441. Staff

Physico-chemical relationships in soils, including the structures of the clay minerals, properties of the electrical double layer, ion exchange phenomena, and soil moisture movement and equilibria.

### Graduate Courses

- 601. Advanced Properties of Materials.** (3:3:0) Arr. Prerequisite: C.E. 401 or equivalent. Staff

Structure of metals and behavior of materials under various conditions of loading and use; relation of mechanical properties to behavior and their significance; tests and interpretation of test data.

- 603. Theory of Elasticity.** (3:3:0) Arr. Prerequisites: Math 334 and 336 or equivalent. Staff

The mathematical theory of elasticity; analysis of stress and strain; generalized Hooke's law; uniqueness theorem, special topics in elasticity.

- 621. Thin Shell Structures.** (3:3:0) Arr. Prerequisites: C.E. 424, C.E. 525. Staff

Theory and design methods related to domes, arches, solid plate, and hyper structures.

- 622. Bridge Design.** (3:3:0) Arr. Prerequisites: C.E. 423, 424, 525. Staff

Design of statically indeterminate bridge structures including composite continuous beams and continuous trusses; design of piers and abutments; AASHTO bridge design specifications.

- 623. Pre-Stressed Concrete.** (3:3:0) Arr. Prerequisite: C.E. 424. Staff

Basic theory, pre-stress and post-stress methods; details of design and fabrication; applications to continuous structures.

- 625. Structural Design of Multi-Story Buildings.** (3:3:0) Arr. Prerequisites: C.E. 423, 424, 525. Staff

Design loadings and specifications, analysis and design of statically indeterminate structural frames of steel and concrete; elastic and plastic approaches to design.

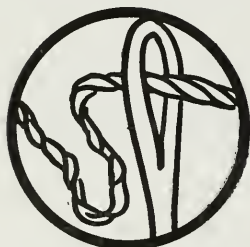
- 632. Advanced Hydrology.** (3:3:0) Arr. Prerequisites: C.E. 431, 432 or equivalent. Staff  
Theory application of advanced hydrologic principles to engineering design and investigations.
- 633. Hydraulic Design of Water Control Structures.** (3:3:0) Arr. Prerequisites: C.E. 432, 531. Staff  
Hydraulic and structural design of concrete dams and appurtenants works operational procedures.
- 641. Advanced Soil Mechanics.** (3:3:0) Arr. Prerequisites: C.E. 441, 542 or equivalent. Rollins  
Advanced topics in soil mechanics including stress distribution in earth masses, the shearing strength of soils, consolidation theory, settlement analysis, stability of slopes and the bearing capacity of soils.
- 642. Advanced Soil Mechanics Laboratory.** (2:0:6) Arr. Prerequisites: C.E. 441, 542, or equivalent. Staff  
Advanced study in the techniques of laboratory investigations of soils.
- 644. Advanced Foundation Engineering.** (3:3:0) Arr. Prerequisite: C.E. 641.  
Applied course in foundation engineering including techniques of subsurface investigation, determination of the allowable soil pressures for footings, and the design of spread footings, raft foundation and pile foundation for structures on clays, silts, and sand.

## Clothing and Textiles

### Assistant

**Professors:** Childs (chairman, 3256-C SFLC), Jorgensen, Lee.

**Instructors:** Domgaard, Liechty, Orme.



The clothing and textiles curriculum is designed to help the student understand clothing as it relates to the needs of individuals and families and to know the implications in commerce. A knowledge of textiles is emphasized as an aid to wise selection and effective use and care of clothes. Expression of creative abilities is encouraged in designing, selection, and construction of clothing. Appreciation is developed for the role of textiles and clothing in world cultures.

Careers open to majors in this field vary with individual aptitudes and experience and with the choice of a minor. Professional opportunities are found in demonstration work, dress designing, dressmaking, fashion illustration, fashion merchandising, fashion promotion, garment manufacturing, institutional purchasing, textile designing, textile promotion, textile testing, and theater costuming. Students are also prepared for graduate study leading to college teaching, research, and extension services.

### Major and Minor Requirements

Majors are required to complete a minimum of 22 credit hours in the department, with at least 3 credits in each of the four areas:

Construction: Clothing and Textiles 165, 235, 355.

Design and Selection: Clothing and Textiles 110, 300, 345, 350.

History and Economics: Clothing and Textiles 330, 430, 472.

Textiles: Clothing and Textiles 260, 580.

Clothing and Textiles 594, Special Problems, or 595, Special Problems in Construction is also expected.

For graduation from the College of Family Living these hours must be combined with enough credit to make a total of 35 credit hours. At least 12 hours must be outside the major field with a minimum of 3 hours in each of the three departments: food and nutrition, housing and home management, human development and family relationships. The student is also expected to complete general education requirements as set up by the University. Chemistry is required as one of the physical sciences, and psychology is strongly advised as one of the social sciences.

Students who minor in clothing and textiles are required to complete 14 credit hours in the department with at least one course in each of the four areas: construction, design and selection, history and economics, and textiles. Men who desire to minor in clothing and textiles should consult the department chairman.

Clothing and textile majors who are interested in costume design and illustration are advised to minor in art. Recommended courses are Art 110, 122, 233, 239, 322, 345, and 446.

Students who are primarily concerned with textile design should complete a minor in art. Art 110, 250, 263, 306, 352 and 362 are advised.

Business management is an appropriate minor for students interested in fashion merchandising, fashion promotion, and institutional purchasing. Recommended courses are Business Management 347, 456, 566. Also advised are Business Management 315, 420, 455.

Students who combine a clothing and textiles major with a minor in journalism are encouraged to elect Journalism 101, 111, 211, 330, 331, 351, 471.

Students of theater costume are advised to minor in dramatic arts with the following courses: Dramatic Arts 123, 460, 565, 566. Also recommended are Dramatic Arts 676, 678, and Art 110, 233.

Other minors chosen with the approval of the adviser may be more appropriate for students with special interests.

### Recommended Sequence of Courses for Majors

Freshman Year		Junior Year	
	Hours		Hours
Religion** .....	4	Religion** .....	4
English** (hours determined by placement exam) .....	4-6	English (literature)* .....	3
Physical education and health** .....	3	History 170* .....	3
Chemistry 101*, 102* .....	8	Art 306 .....	3
Psychology 111 .....	3	Clothing and Textiles 300, 330, 345, 350 (courses toward major) .....	6
Family Living 91** .....	0	Electives (including courses toward minor) .....	11-13
Clothing and Textiles 110*, 165* .....	6		
Elective .....	2		
Sophomore Year		Senior Year	
	Hours		Hours
Religion** .....	4	Religion** .....	4
Physical education** .....	1	Humanities .....	2
Physics 110 or 177 .....	3	Clothing and Textiles 355, 430, 472, 580, 594 (courses toward major) .....	7
Bacteriology 121 .....	3	Family Living (courses toward 35 hours total) .....	3
Botany 101 or Zoology 105 .....	3	Elective (including courses toward minor) .....	14-16
Economics 101 .....	3		
Food and Nutrition 101, 210 .....	2-4		
Housing and Home Management 220 or 221 or 235 .....	3-4		
H.D.F.R. 210 .....	3		
Clothing and Textiles 235, 260 .....	3-5		
Elective .....	2		

\*required course

\*\*required in the year listed

### Lower Division Courses

105. **Elementary Clothing Construction.** (1:1:2) F.S. Domgaard, Orme  
Not for majors in clothing and textiles. Service course for students with little or no experience in sewing. Construction of cotton clothing.
110. **Selection and Care.** (2:2:1) F.S. (m) Lee, Liechty, Orme  
Design elements and principles as applied to selection of clothing; planning, cost, and care of wardrobe; personal analysis of grooming, posture, personality.
124. **Clothing for Men.** (1:1:1) S. (m) Childs, Lee  
Open to all men students. Men's apparel is related to the wearer. Planning, buying, cost, care, and self-improvement factors. Field trips. Guest lecturers.

- 165. Dress and Pattern Construction.** (4:2:6) F.S. (m) Staff  
Techniques and procedures in fitting and constructing a tailored dress and an afternoon or evening dress; analysis and modification of commercial patterns.
- 235. Children's Clothing.** (2:1:3) F.S. (m) Prerequisite: Clothing and Textiles 165. Domgaard, Jorgensen  
Selection, design, and construction of children's clothing as related to the child's developmental needs.
- 260. Textiles.** (3:3:1) F.S. (m) Childs, Lee  
Natural and synthetic textile fibers; yarns, fabric construction, dyes, and finishes; fundamental considerations in the purchase, use, and care of textile fabrics.

### Upper Division Courses

- 300. Clothing the Family.** (2:2:0) F.S. (m) Recommended: at least 3 hours credit in psychology, sociology, or economics, and one class in H.D.F.R. Childs  
For men and women. Factors involved in the planning, selecting, and purchasing of clothing for the family; consideration of needs, resources, and sociological and psychological effects.
- 330. History of Costume.** (2:2:0) F.S. (m) Prerequisite: some work in economics, sociology, and history. Jorgensen  
Social, economic, and political influences on dress. Analysis of costume as an expression of the life of the people and as a basis for interpreting modern fashions.
- 345. Draping and Flat Pattern Design.** (3:2:4) F. (m) Prerequisites: Clothing and Textiles 110, 165, 260; recommended: Clothing and Textiles 330. Liechty  
Creative design achieved through techniques of flat pattern and draping on an individualized dress form.
- 350. Costume Design.** (2:2:2) S. (m) Prerequisites: Clothing and Textiles 110, 165, 330, 345. Orme  
Opportunities for creative expression in applying principles of art to clothing design; exploring various resources for inspiration.
- 355. Tailoring.** (3:3:3) F.S. (m) Prerequisites: Clothing and Textiles 165, 260; recommended: Clothing and Textiles 330. Domgaard, Liechty  
Custom tailoring techniques applied to construction of coats and suits.
- 430. Historic Textiles.** (2:2:0) S. (m) Prerequisite: Clothing and Textiles 260; recommended: Clothing and Textiles 330. Liechty  
History and development of textile fabrics from primitive times to present age.
- 472. Fashion Industry.** (2:2:0) S. (m) Prerequisite: 3 hours in clothing and textiles; 6 hours in economics, sociology, or history. Jorgensen  
Development of the fashion movement—its relation to manufacturing and consumption of clothing. Garment production, fashion designers, fashion cycles, and trade organizations.
- 580. Advanced Textiles.** (3:3:2) S. (m) Prerequisites: Clothing and Textiles 260; Chemistry 101, 102. Childs  
Investigation and analysis of physical and chemical properties of textile fibers and fabrics. Recent textile developments.
- 594. Special Problems.** (1-2:Arr.:Arr.) F.S. Prerequisites: 15 semester hours in clothing and textiles and permission of instructor. Staff
- 595. Problems in Construction.** (1-2:Arr.:Arr.) F.S. Prerequisites: 15 semester hours in clothing and textiles and permission of instructor. Staff

Herald R. Clark in charge (154 JK)

## Devotional Assemblies



(An interdepartmental area only)

Throughout the history of Brigham Young University, students have been privileged to receive special visits from the General Authorities of the Church and hear messages prepared especially for them. At present, devotional assemblies are held weekly on Wednesday mornings. It is planned that during the academic year the students will have the opportunity to hear outstanding Church leaders including all members of the First Presidency and the Council of the Twelve Apostles.

Credit for attendance at the weekly devotional assembly may be earned at the rate of one-half semester hour per semester, and such credit may be applied toward the requirement for religion in the following manner: A student who does all of his undergraduate work at B.Y.U. may apply a total of three semester hours of credit toward the religion requirement during his junior and senior years.

### Lower Division Courses

- |  |                           |
|--|---------------------------|
| 101, 102. Lectures in Religion. ( $\frac{1}{2}$ :1:0 ea.) F.S. | Staff and Guest Lecturers |
| 201, 202. Lectures in Religion. ( $\frac{1}{2}$ :1:0 ea.) F.S. | Staff and Guest Lecturers |

### Upper Division Courses

- |  |                           |
|--|---------------------------|
| 301, 302. Lectures in Religion. ( $\frac{1}{2}$ :1:0 ea.) F.S. | Staff and Guest Lecturers |
| 401, 402. Lectures in Religion. ( $\frac{1}{2}$ :1:0 ea.) F.S. | Staff and Guest Lecturers |

## Dramatic Arts



**Professors:** Hansen (chairman, Steadman House), Gledhill, Mitchell.

**Assistant**

**Professors:** McKinlay, Rich, Tarbox, Williams.

**Instructors:** Golightly, Henson, Michie, Stewart, Struthers.

## Speech



**Professors:** Bateman, deJong, Morley.

**Associate**

**Professor:** Mecham.

**Assistant**

**Professors:** Clinger (chairman, Elliot House), Jex, Pardoe, Richardson, Weaver.

**Instructors:** Boren, Faux, Smith.

The Department of Dramatic Arts and the Department of Speech are each administratively independent of the other; however, in order to more completely prepare the student for teaching in the schools and to meet the competition in professional theatre, radio, and television, the faculty members and courses from both departments are utilized to achieve these purposes.

The following courses are required of all majors within both the Department of Dramatic Arts and the Department of Speech.

Dramatic Arts 121, 241, 460.

Speech 101, 271, 491.

### The High School Teacher

Those students wishing to qualify as teachers in the high schools will complete the following courses and receive the joint recommendation of the Department of Dramatic Arts and the Department of Speech. The required courses are:

	Hours
Dramatic Arts 121, 123, 126, 241, 319, (320-321—2 hours), 325, 460 .....	18
Speech 101, 111, 271, 305, 401, 491, 527 .....	16
<b>Total Hours</b> .....	<b>34</b>

Additional courses recommended:

Dramatic Arts 315, 564, 565, 423.

Speech 360, 402, 524 or 525.

### Teaching Minor:

Dramatic Arts 121, 319, 1 hour from 320 or 321, 325.

Speech 101 or 102, 305, 491.

Speech 491 is required of all majors and minors in both departments and is taught Second Semester only. Required courses may be waived only on acceptance of the student's petition by the department waiver committee.

Mask Club is sponsored by both departments to provide practical experience and participation in all of the speech arts. It is held each Monday night from 7:00 to 8:00 p.m. in College Hall.

**Requirements for Minor:**

The requirements for a general minor in dramatic arts and speech must be selected from the following courses:

Dramatic Arts 121, 319, 1 hour from either 320 or 321, 325, 460.  
Speech 102, 305, 491, 527.

**DEPARTMENT OF DRAMATIC ARTS**

The B.A., B.S., M.A., and M.S. degrees are offered by the department. Students may elect to specialize in one of the two areas of Dramatic Arts.

**AREAS OF CONCENTRATION**

Dramatic Arts	Hours
Basic Courses:	
Dramatic Arts 121, 241, 460 .....	8
Speech 101, 271, 491 .....	7
Requirements for specialization:	
123, 126, 319, (320, 321—2 hours), 423, 564, 565 .....	17
Total Hours .....	32
Additional courses recommended:	
Dramatic Arts 325, 360, 570.	
Speech 305, 527.	

**Sequence of Courses**

	F	S
First Year	101 (3) 126 (1)	121 (3) 123 (3)
Second Year	241 (2)	271 (2)
Third Year	564 (3) 319 (2)	565 (3) 527 (2) 320, 321 (2) 305 (3)
Fourth Year	460 (3) 423 (3)	491 (2)

Radio and Television	Hours
Basic Courses:	
Dramatic Arts 121, 241, 460 .....	8
Speech 101, 271, 491 .....	7
Requirements for specialization:	
Dramatic Arts 346, 351, 455, 456, 452, 453, or 255, plus alternatives 1, 2, 3, or 4 listed below to total 6 hours .....	6
Total Hours .....	34

**Choices in alternate areas:**

- (1) Education
- (2) Marketing
- (3) Business management
- (4) Journalism should be approved by the student's adviser.

**Additional courses recommended:**

Dramatic Arts 320, 321, 347, 450.  
Speech 305, 401.

## Sequence of Courses

	F	S
First Year	101 (3)	121 (3)
Second Year	241 (2) 305 (2)	*255 (2) 271 (2)
Third Year	346 (2) 320, 321 (2) 401 (2)	347 (2) 351 (2) 460 (3)
Fourth Year	455 (2) 449 (3)	456 (2) 450 (3) 491 (2)

\*The student may take either 452 and 453, or 255.

Students concentrating in radio and TV should select a closely related minor. The following minors are suggested: marketing, business management, office management, journalism, or education.

## Lower Division Courses

- 121. Voice, Diction, and Interpretation.** (3:3:3) F.S. (G-HA m) Staff  
Practical and general course designed to improve vocal skill and oral reading. Attendance at Monday night Mask Club required.
- 123. Fundamentals of Acting.** (3:3:1) F.S. Golightly, Hansen  
Basic theories and techniques of acting. Attendance at Monday night Mask Club required.
- 126. Makeup.** (1:1:2) F.S. Henson, Michie  
Theory and practice of theatrical makeup. Attendance at Monday night Mask Club required.
- 241. Introduction to Radio and TV Broadcasting.** (2:2:3) F.S. Staff  
Scope, influence, current practice, problems, and social implications of the American system of radio and television broadcasting; microphone and TV camera practice and experience. Attendance at Monday night Mask Club required.
- 255. Beginning Radio and TV Production.** (2:2:0) F.S. McKinlay, Rich  
Practice in performance, production, and direction of radio and television dramatic and commercial programs.

## Upper Division Courses

- 315. Introduction to the Theatre.** (2:2:1) F.S. (G-HA) Staff  
Introduces students to fundamental theories of theatre arts, develops a discriminating appreciation and provides a basic background for those interested in theatre. Attendance at Monday night Mask Club required.
- 319. Stage Craft.** (2:3:0) F.S. (m) Henson, Struthers  
Theories and techniques of stage craft. Attendance at Monday night Mask Club required.
- 320, 321. Stage Craft Lab.** (1-3:0:3-12) F.S. (m) Henson, Struthers  
Laboratory application of theories and techniques. Attendance at Monday night Mask Club required.
- 325. Advanced Interpretation.** (2:1:2) S. (m) Clinger, Golightly  
Artistic oral reading in advanced level. Emphasis on dramatic reading, humorous reading, and pantomime.
- 346, 347. Radio and Television Production Workshop.** (2:1:2) F.S. McKinlay, Rich, Williams  
Experience in planning and producing radio and television programs for University Broadcasting Service Network, KBYU, and KUED-TV.

- 351. Radio and Television Program Writing.** (1-3:1-2:1) F. Prerequisite: consent of instructor. Williams  
Practice in writing various types of broadcast continuity and low-cost types of radio and television programs.
- 360. Creative Dramatics in the Schools.** (2:2:0) F.S. Golightly, Mitchell  
Directing for audiences of children and youth. Participation in Youtheater productions. Attendance at Monday night Mask Club required.
- 412. Religious Drama.** (2:2:0) F.S. Hansen
- 423. Advanced Acting.** (3:3:1) S. Hansen  
Theory in characterization and advanced acting techniques. Attendance at Monday night Mask Club required.
- 427p. Dramatic Technique.** (1:3:0) F.S. Staff  
Instruction in advanced dramatic techniques. Special fee.
- 449. Radio and Television Programming and Audiences.** (3:3:0) F. McKinlay  
Analysis and extensive observation of basic program forms used in radio and television; examination of effective program structures and appeals; consideration of audience situation and measurement.
- 450. Radio and Television Law and Program Planning.** (3:3:0) S. Williams  
The influence of public attitudes and decisions of regulatory bodies on basic program standards; practice in planning radio and television programs consistent with these standards.
- 452, 453. Radio and Television Announcing.** (1:1:0) F.S. Prerequisites: Dramatic Arts 121, 241, or consent of instructor. McKinlay  
Practice in presentation of all types of radio and television announcer materials.
- 455, 456. Advanced Television Production and Direction Workshop.** (2:1:2) F. S. Prerequisite: consent of instructor. Rich, Tarbox  
Practice in production and direction of television programs for educational and commercial TV stations.
- 460. Directing.** (3:3:3) F.S. (m) Staff  
Theories and techniques of directing a play. For advanced students only. Attendance at Monday night Mask Club required.
- 491. Senior Seminar.** (2:2:1) S. Clinger, Hansen  
Required of all majors and minors. Attendance at Monday night Mask Club required.

#### Advanced Undergraduate or Graduate Courses

- 555. Theatre Workshop.** (2-4:2-4:2) Summer only. Hansen  
Practical production on the graduate level. May be repeated.
- 564. Theatre History I.** (3:3:0) F. Hansen  
The development of the theatre, covering periods of Primitive, Egyptian, Greek, Roman, Medieval, and Elizabethan theatre.
- 565. Theatre History II.** (3:3:0) S. Hansen  
The development of the theatre, covering the Restoration period in England, the Western theatre in the 19th and 20th centuries, and the Oriental theatre.
- 572, 573. Children's Theatre.** (2:2:1) F. Golightly, Mitchell  
Directing for audiences of children and youth. Participation in Youtheater productions. Attendance at Monday night Mask Club recommended.
- 577, 578. Playwriting.** (1-2:1-2:0) F.S. Hansen, Mitchell  
Advanced techniques and theories.

## Graduate Courses

603. Radio and Television Projects. (1-4:1-4:0) S.	Staff
605. History of Radio and Television Programming. (2:2:0) S.	Staff
643. Methods and Problems of Research in Speech and Dramatic Arts. (2:2:0) F.	Clinger, Mecham
660. Theory of Interpretation. (2:2:0) S.	Gledhill, Mitchell
661. Oral Interpretation of Classical Literature. (2:2:0) F.S.	Mitchell
662. Regional Dialects. (2:2:0) S.	Clinger
663. Program Building and Lecture Recital. (2:2:0) F.	Gledhill
667. History of Acting. (2:2:0) S. Styles and theories from Classical to Method.	Hansen
668. Special Problems in Theatre History. (1-3:1-3:0) F.S. Oriental theatre and the Free theatres of Europe.	Staff
670. Advanced Play Production—Technical. (2:2:0) S. A formal study of the "isms" from the point of view of stage design.	Staff
671. Experimental Theatre. (2:2:0) F.	Hansen
672. Problems of the Producing Director. (2:2:0) F.	Hansen
673. Advanced Play Production—Directing. (2:2:0) S.	Hansen
674. Projects in Theatre. (1-4:1-4:0) F.S.	Staff
675, 676. Stage Design. (2:2:1) F.S. May be repeated.	Staff
678. Stage Lighting. (1-2:1-2:0) F.S.	Staff
690. Seminar in Mass Communication. (1-3:1-3:0) F.S.	Staff
691. Selected Readings in Radio and Television. (1-3:1-3:0) F.S.	Staff
696. Seminar in Interpretation. (1-3:1-3:0) F.S.	Gledhill
697. Seminar in Arena Theatre. (1-4:1-4:0) F.S.	Hansen
699. Thesis for Master's Degree. (1-6:Arr.:Arr.) F.S.	Staff

## DEPARTMENT OF SPEECH

The B.A., B.S., M.A., and M.S. degrees are offered by the department. Students may elect to specialize in one of the two areas of speech.

## The High School Teacher

For details regarding speech major and minor teaching certification see the first page of these departments section.

## AREAS OF CONCENTRATION

## Public Address

Basic Courses:	Hours
Dramatic Arts 121, 241, 460 .....	8
Speech 101, 271, 491 .....	7
Required for specialization:	
111, 305, 401, 402, 7 or 8 hours electives from dramatic arts.	
123, 244, 325, or Speech 523, 525, 527, 547 .....	16-18
Total Hours .....	31-33

Additional courses recommended:

Speech 360; course in American history and government.

**Note:** A non-teaching minor of selected courses in public address may be obtained with the approval of the chairman of the Department of Speech.

### Sequence of Courses

	F	S
First Year	101 (3)	121 (3)
Second Year	111 (2)	241 (2)
	305 (3)	271 (2)
Third Year	401 (2)	402 (2)
	460 (3)	
Fourth Year		491 (2)

### Speech Science, Speech Correction and Oral Rehabilitation

#### I. Courses leading to the baccalaureate degree:

Basic courses:	Hours
Dramatic Arts 121, 241, 460 .....	8
Speech 101 or 102, 271, 491 .....	6-7
Requirements for specialization:	
Speech 270, 371, 373, 374, 446, 483 .....	20
Total Hours .....	34-35

#### II. Additional courses needed for various types of certification:

- A. Utah certification in public school special education (speech and hearing specialization):  
Speech 475, E.R.S. 460 ..... 7
- B. American Speech and Hearing Association certificate in speech (basic):  
Speech 360, 542, 547, Psychology 111, 320, 340, 378 ..... 16  
Graduate (advanced) certificate:  
Speech 645, 646, 647, 648, 656, 693, 699 ..... 14-22
- C. American Speech and Hearing Association certification in hearing (basic):  
Speech 360, 545, 547, 560, 561; Psychology 111, 320, 340, 378 .. 17  
Graduate (advanced) certificate:  
Speech 657, 694, 695, 699 ..... 5-15
- D. Requirements for a minor in speech correction and aural rehabilitation are:  
Speech 101 or 102, 121, 271, 366, 371, 483.

### Public School Certification

For those seeking certification as public school speech and hearing correctionists, the general elementary credential is currently required. Inasmuch as changes in the State Certification Office are currently being considered, each student should contact the Teacher's Certification Office in the McKay Building for up-to-date information on registration and certification requirements.

### Sequence of Courses

	F	S
First Year	101 (3)	121 (3)
	or	360 (2)
	102 (2)	241 (2)
Second Year	270 (2)	371 (3)
	271 (2)	366 (2)

Third Year	373 (3)	374 (2)
	446 (2)	460 (3)
Fourth Year	483 (1)	483 (1-3)
		491 (2)

### Lower Division Courses

- 58. Speech for Foreign Students.** (0:5:0) S. Staff
- 60. Remedial Speech.** (0:0:3) F.S. Staff  
A non-credit service course for college students who have speech and/or language problems.
- 101. Fundamentals of Speech.** (3:3:1) F.S. Staff  
Beginning course to aid self-improvement in speech as a mode of communication. Provides opportunity to practice for greater effectiveness in personal use of the various speech skills. Recommended for speech majors, prospective teachers and students who desire improvement in their everyday speech activities.
- 102. Introduction to Public Speaking.** (2:2:1) F.S. (m) Staff  
Practical service course designed to improve speech efficiency, self-confidence, and skill in organization and delivery of all types of speeches encountered in business, professional, social, and religious activities.
- 105p. Speech Clinic.** (1:1:0) F.S. Staff  
Students may register for a total of 4 hours credit in this course. Corrective treatment of articulation, stuttering, and other forms of speech disorders.
- 111. Introduction to Argument and Debate.** (2:2:2) F.S. Boren, Richardson  
Principles of argumentation and practice in debate.
- 112, 113. Debate Technique.** (1:1:1 ea.) F.S. Boren, Richardson  
Open to members of the forensics squad who obtain approval of the Speech Department and debate council. To obtain credit in debating, students must register for this course with at least two hours of instruction per week.
- 270. Speech Science.** (2:2:2) F. Jex  
An investigation into the basic processes underlying speech and audition through experiment and instrumentation.
- 271. Introduction to Speech Correction and Aural Rehabilitation.** (2:2:0) F.S. Jex, Mecham  
Consideration of the characteristics of normal speech and hearing and the deviations therefrom. The need, nature, and development of programs to correct speech and hearing disabilities.

### Upper Division Courses

- 301, 302. Debate Techniques.** (1:1:1) F.S. Boren, Richardson  
Open to members of the forensics squad who obtain approval of the Speech Department and the debate council. To obtain credit in debating, students must register for this course with at least two hours of instruction per week.
- 304p. Public Speaking.** (1:1:0) F.S. Staff  
Individual instruction. Special fee.
- 305. Discussion and Conference Leadership.** (2:3:0) F.S. Boren, Richardson  
Concerned with basic democratic procedure for cooperative thinking. Offers experience in business and industrial conference leadership. For those who serve on committees or boards; conduct classroom sessions; conduct staff meetings; talk over and resolve common problems in church, school, or office; and for all who are preparing to participate in or lead informal discussion in small groups.

- 360. Practical Phonetics.** (2:2:0) F.S. deJong
- 361. Speech Pathology.** (3:3:0) S. Prerequisite: Speech 271. Morley  
Courses, differential diagnosis, and approaches to clinical treatment of the functional disorders of speech; procedures in counseling of parents of speech cases; the speech correction kit.
- 366. Speech in Elementary School.** (2:2:0) F.S. Home Study also. Jex, Mecham  
Objectives and methods of developing good speech habits in children. Recognition and management of minor speech problems.
- 373. Introduction to Audiology.** (3:3:2) F. Prerequisite: Speech 371. Weaver  
For prospective teachers and clinicians in speech correction and audiology as well as public health nurses. A survey of the physical, physiological, medical, and psychological aspects of hearing impairment and the effects of these upon language development. Included are audiometric screening, case finding and referral, interpretation of audiograms, description and use of hearing aids, as well as the educational, psychological, and social aspects of aural rehabilitation.
- 374. Speech Reading and Auditory Training.** (2:3:0) S. Prerequisite: Speech 373. Weaver  
Rationale and methods for teaching lipreading to acoustically handicapped children or adults with emphasis on auditory training as a supplement to speech reading in the receptive language process. Observation required.
- 377. Secondary Teaching Procedures.** (3:3:1) F.S. Prerequisite: Instruction 301. Clinger, Golightly  
Lectures, demonstrations, observation.
- 401. Advanced Public Speaking.** (2:2:0) F.S. Prerequisite: Speech 101. Bateman, Richardson  
Advanced study and practice in techniques of speaking.
- 402. Advanced Argument and Debate.** (2:2:0) S. Prerequisite: Speech 111. Bateman, Boren, Richardson  
Analysis of classic debates and practice in argumentative writing and speaking.
- 446. Anatomy of the Ear and Vocal Organs.** (2:2:0) F. Mecham
- 475. Practice Teaching in Correction of Speech and Hearing Disorders in the Public Schools.** (4:0:14) F.S. Prerequisites: Instruction 320 and completion of 200 clock hours of comprehensive supervised clinic practicum in speech and hearing correction in 483. Jex  
Supervised teaching in public elementary school for a full semester on a half-day basis. Qualified student clinicians who register for this course are placed in a public school district where there is a practicing public school speech and hearing correctionist. The student teachers receive experience in diagnosis and therapy with children having speech and hearing disorders. Student teachers participate in weekly seminars and personal conferences with the supervisors. The nature of this course dictates that students limit their load to 12 semester hours. A special fee of \$45.00 is charged to equalize the cost of travel for student teachers regardless of location of cooperating public schools.
- 479. Secondary Student Teaching.** (8:1:20-80) F.S. Prerequisites: Speech Education 377 and completion of two-thirds of courses required for teaching major and minor or composite major. Clinger, Golightly  
For course description and fees, see Instruction 479.
- 483. Clinical Methods and Practicum in Speech and Hearing Rehabilitation.** (4:1:8) F.S. Staff  
This course is a 2 semester course with 4 hours credit per semester. Designed to build clinical competence with various types of speech and hearing disorders at pre-school, school age, and adult levels. Approximately 300 hours of case contact, testing, diagnosis, and therapy are required.

491. **Senior Seminar.** (2:2:1) S. (m) Clinger, Hansen  
Required of all majors and minors. Attendance at Monday night Mask Club required.
524. **High School Forensics and Programming.** (1-2:1-2:1-6) Su. Bateman, Boren
525. **Debate Coaching.** (1-2:1-2:0) F.S. Boren, Richardson  
Designed for prospective debate coaches. Covers debate techniques and how they are taught.
527. **Storytelling.** (2:2:0) S. (m) Clinger, Golightly  
Art of storytelling. Especially valuable to teachers and youth leaders.
542. **Organic Speech Disorders.** (2:2:0) S. Mecham
545. **Public School Audiometry.** (2:2:2) Prerequisite: Speech 373. Weaver
547. **Psychology of Speech.** (2:2:0) S. Prerequisite: Psychology 111. Morley
560. **Clinical Audiology.** (2:2:2) S. Prerequisite: Speech 373. Morley, Weaver
561. **Hearing Aids.** (1:1:0) S. Weaver
590. **Selected Reading and Projects in Public Address.** (1-2:0:0) S.Su. Staff  
Opportunity for expression of independent research and experimental work in special reading and public address projects over and beyond or outside of usual thesis work.

#### Graduate Courses

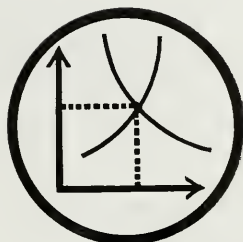
621. **Ancient Rhetoric and Oratory.** (2:2:0) F. Boren
622. **History of British Public Speaking.** (2:2:0) S. Boren
623. **History of American Oratory and Public Address.** (2:2:0) F. Bateman
624. **Contemporary Public Address.** (2:2:0) S. Bateman, Richardson
640. **Internship in Advanced Methodology and Clinical Practicum in Speech Pathology.** (1-2:1-2:0) F.S. Staff
641. **Internship in Advanced Methodology and Clinical Practicum in Audiology.** (1-2:1-2:0) F.S. Staff
643. **Methods and Problems of Research in Speech and Dramatic Arts.** (2:2:0) F. Clinger, Mecham  
Required of all graduate students. It is imperative that students take this course early in their graduate program.
645. **Advanced Studies in Stuttering.** (2:2:0) S. Morley
646. **Advanced Studies in Cleft Palate.** (2:2:0) F. Mecham, Morley
647. **Advanced Studies in Cerebral Palsy.** (2:2:0) F. Mecham
648. **Advanced Studies in Aphasia.** (2:2:0) S. Mecham
656. **Special Projects in Speech Pathology.** (1-4:1-4:0) F.S. Staff
657. **Special Projects in Audiology.** (1-2:1-2:0) F.S. Staff
692. **Seminar in Public Speaking.** (1-3:1-3:0) F.S. Bateman
693. **Special Studies in Speech Pathology.** (1-3:1-3:0) F.S. Staff
694. **Special Studies in Audiology.** (1-2:1-2:0) F.S. Staff
695. **Seminar in Psychoacoustics of Speech and Hearing.** (1-3:1-3:0) F.S. Staff
699. **Thesis for Master's Degree.** (Arr.) F.S.Su. Staff

## Economics

**Professors:** Clark, Nelson.

**Associate Professors:** Davies, Mangum.

**Assistant Professors:** Doxey (chairman, 302 JK), Monsen, Wirthlin.



The philosophy of the department is to provide a liberal background to serve as a basis for entrance into many professional areas. Thus, a minimum of special courses is required, allowing the student considerable flexibility in developing his own program.

Several programs are available to serve students majoring in economics:

1. General business economics—for students desiring to go directly into business.
2. Labor relations and labor economics—for those intending to make labor relations a profession.
3. Pre-professional economic training—for those contemplating entering law school, a graduate school of business, government service, or similar areas of study.
4. Economic theory—for students intending to do graduate work in economics or allied fields.
5. International economics—for those desiring to enter foreign service or engage in international trade.
6. Junior college teaching—for graduate students planning to teach economics in the junior colleges.

Economics is also designated as a composite teaching major and teaching minor. (See College of Education.)

Students selecting economics as a minor subject should include Economics 111, 112, and 345 in the required 14 hours.

The bachelor's degree in economics is offered in both the College of Business and the College of Humanities and Social Sciences.

### Requirements for a Major in the College of Business

Economics 111, 112, 274, 345, 346, 453, (either 580, 586, or 587), and thirteen additional hours.

Statistics 221 and either one other course in statistics or Accounting 332. Business Management 340 and 347.

Accounting 131, 201, 202 (or 211, 212) and 342.

### Requirements for a Major in the College of Humanities and Social Sciences

Economics 111, 112, 274, 345, 346, 453, (either 580, 586, or 587), and thirteen additional hours.

Statistics 221 and either one other course in statistics or Accounting 332.  
Completion of an approved minor requirement of no fewer than 14 hours.

### Lower Division Courses

- 101. Introduction to Economics.** (3:3:0) F.S.Su. Home Study also. (G-SS m) Staff  
Basic general education course in economics to familiarize students with fundamental economic principles and to develop an understanding of the most important aspects of some of the critical economic problems facing America and the world today.
- 111. Economic Principles and Problems.** (3:3:0) F.S.Su. (G-SS m) Staff  
The first of a two-semester sequence in which an intensive analysis is made of basic economic principles and problems.
- 112. Economic Principles and Problems.** (3:3:0) F.S.Su. (G-SS m) Prerequisite: Economics 111. Staff  
A continuation of 111.
- 274. Economic and Financial History of the United States.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Davies, Doxey  
The important economic developments in the history of the United States. Special attention is given to their effect on the present-day economy.

This course also counts in economics:

**Geography 231. Economic Geography.** (3:3:0)

### Upper Division Courses

- 345. Intermediate Economic Analysis.** (3:3:0) F.S.Su. (m) Prerequisites: Economics 111 (or 101) and 112. Staff  
Intermediate economic theory with emphasis on national income analysis.
- 346. Intermediate Economic Analysis.** (3:3:0) S. (m) Prerequisites: Economics 111 (or 101) and 112. Staff  
Intermediate economic theory with emphasis on price and distribution analysis.
- 358. International Trade and Finance.** (3:3:0) F. (G-SS m) Prerequisites: 101 or 111, and 112. Doxey  
An introduction to the principles and problems of international trade and finance. Special emphasis is placed on their application in the United States.
- 383. Comparative Economic Systems.** (3:3:0) F. (G-SS m) Monsen  
Analysis and critical appraisal of contemporary economic systems: capitalism, socialism, and communism.
- 430. Economic Development.** (3:3:0) S. (m) Prerequisites: Economics 101 or 111, and 112. Wirthlin  
Theory and experience of achieving economic growth in both underdeveloped and developed economies.
- 453. Money and Banking.** (3:3:0) F.S. (m) Prerequisites: Economics 101 or 111, and 112. Staff  
Principles of money and banking as related to monetary and banking theory and policy.
- 454. Real Estate and Urban Land Economics.** (3:3:0) F. (m) Nelson  
Forces of demand and factors of supply of urban land as they relate to real estate credit, rents, prices, and city growth.
- 461. Labor Economics and Labor Relations.** (3:3:0) F. (m) Davies, Mangum  
Examination of major areas in which management and unions come into contact, and the forces affecting this relationship. Special emphasis is given to collective bargaining.

462. **Labor and Public Policy.** (3:3:0) S (m) Davies, Mangum  
Impact of unionism on the public and the development of a public labor policy.
475. **European Economic History.** (3:3:0) S. (m) Staff  
Historical development of Europe's economic institutions and their effect on the general history of that continent.

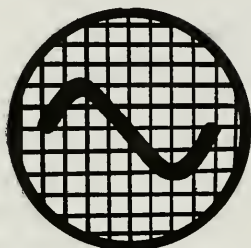
#### Advanced Undergraduate or Graduate Courses

510. **Workshop on Economic Education.** (3:Arr.:Arr.) Su. (m) (Continuous for three weeks.)
530. **Advanced Economic Development.** (3:3:0) F. (m) Wirthlin
535. **Economic Problems of Asia.** (3:3:0) S. (m) Monsen
558. **International Trade and Finance.** (3:3:0) S. (m) Doxey
575. **Government Finance.** (3:3:0) F. (m) Mangum
576. **Government and Business.** (3:3:0) S. (m) Mangum
580. **History of Economic Thought.** (3:3:0) F. (m) Davies
586. **Theory of Price.** (3:3:0) F. (m) Gardner, Wirthlin
587. **Theory of Income, Employment, and the Price Level.** (3:3:0) S. (m) Gardner, Wirthlin
588. **Econometrics.** (2:2:0) F. (m) Prerequisites: Math 101; Statistics 221; Economics 345. Gardner
590. **Advanced Economic Problems.** (1-2:Arr.:Arr.) F.S.Su. (m) Staff
594. **Seminar in Economic History.** (2:2:0) F. (m) Doxey
- The following courses are applicable in economics but cannot be used for a graduate minor in economics:
- Geography 522. **Urban Geography.** (2:2:0)
- Ag. Econ. 525. **Production Economics.** (2:2:0)
- Geography 533. **Industrial Geography.** (3:3:0)
- Ag. Econ. 580. **Agricultural Policy.** (2:2:0)

#### Graduate Courses

681. **Contemporary Economic Thought.** (2:2:0) S. (m) Gardner
682. **Business and Economic Fluctuations.** (2:2:0) F. (m) Nelson
692. **Seminar in Monetary and Fiscal Policy.** (2:2:0) F. (m) Prerequisite: Economics 345. Staff
693. **Seminar in Comparative Economic Systems.** (2:2:0) S. (m) Monsen, Nelson
694. **Seminar in Labor Economics and Labor Relations.** (2:2:0) S. (m) Prerequisite: Economics 461. Davies, Mangum
- 696, 697. **Research.** (Arr.) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) Staff

## Electrical Engineering Science



**Professors:** Bartholomew, Jonsson.  
**Associate Professor:** Monson (chairman, 175 ELB).  
**Assistant Professors:** Clegg, Miner, Woodbury.  
**Instructor:** Chaston.

This department offers a professional program leading to the degree of Bachelor of Engineering Science in electrical engineering. Advanced work is also offered leading to a Master of Science degree. Subject areas included are communications, acoustics, analog and digital computers, solid state theory, electronics, energy conversion, systems and circuits, measurements, and automatic control. Communications includes concepts applicable to radio, television, radar, telephony, telegraphy, and audio systems; electronics includes the study of vacuum tubes, transistors, and other solid state devices; energy conversion includes the study of generating equipment, motors, distribution equipment, power systems, industrial electronics, and illumination; automatic control includes servo-mechanisms, devices, and system theory.

Training at B.Y.U. places emphasis on the science foundations of mathematics, physics, and chemistry. This means that most of the electrical courses are taught on an advanced science level. The student is also provided with a well-balanced program of social studies, religion, biological science, and humanities.

The extensive background of the faculty will prove valuable to those who wish to undertake special projects in their undergraduate work or research topics in their graduate work. Seminar work and participation in technical meetings sponsored by student organizations provide a rich beginning to a career in electrical engineering. Professional opportunities in this field are many and exist in research, development, design, sales and application engineering, teaching, and business management.

### Entrance Requirements

For both the general entrance requirements of the University and the particular requirements specified for the College of Physical and Engineering Sciences, see those sections of this catalog. The student first enrolls in a pre-engineering course. This is outlined in the College of Physical and Engineering Science section. After completion of this work and upon application by the student to the Electrical Engineering Department, his record will be reviewed. If his work has been satisfactory he will then be admitted to the three-year professional curriculum in electrical engineering.

### Grade Requirements

See the College of Physical and Engineering Science section of this catalog for grade requirements for admission to the professional school.

A cumulative average grade of "C" or better must be maintained in all mathematics, physics, and engineering subjects; otherwise, the student is placed

on a probationary status in the department. No more than six hours of "D" credit in the Electrical Engineering Department will be counted toward graduation.

### Requirements of Major and Options

To obtain a degree in electrical engineering, the student must complete the course work outlined below. Students enrolled in the air science program will normally be required to spend an extra summer to finish their program. Six hours of restricted elective credit which must be taken can be chosen from the following courses: Accounting 342; Business Management 340, 420; Economics 461; E.E. 511, 512, 516, 523, 528, 531, 537, 538, 542, 545, 567, 568, 570; any acoustics course; Psychology 330, 336; and other approved courses in mathematics, physics, and statistics.

Under special conditions one or two of the regular course requirements may be waived upon suitable substitutions. For example, an acoustical option is available wherein some acoustics courses are substituted for others normally required.

It is possible for students during the last year of the program, upon suitable prior application, to take course work that may be applied to a graduate degree. The total overall load under this arrangement must not exceed 16 credit hours.

The following abbreviations are used: Ch.E. for chemical engineering, C.E. for civil engineering, E.E. for electrical engineering, and M.E. for mechanical engineering.

### General Education Group Requirements

Engineering science students are subject to all of the general education requirements listed in this catalog, with the following exceptions and comments:

- (1) They may take the required course in health any time during the first or second year.
- (2) The biological science requirement may be reduced to four semester hours instead of the six semester hours specified. All of these may be obtained in a single course if desired.
- (3) In the program as listed below maximum advantage has been taken of the three hours of religion credit given for attending devotional assemblies for a period of three years.
- (4) It is particularly recommended that the student take Economics 101 and Psychology 111 in satisfying the social science group requirement.

Engineering students may register for 18 hours, exclusive of physical education, forum, and devotional in any one semester without obtaining special permission from the dean of the college.

### NORMAL SEQUENCE OF COURSES FOR MAJORS

#### Pre-Engineering Program

See the College of Physical and Engineering Science section of this catalog.

#### Professional School of Electrical Engineering

First Year Professional (Third Year)			Second Year Professional (Fourth Year)		
	F	S		F	S
Math 313, 336 .....	3	3	E.E. 431, 432 .....	4	3
E.E. 311, 312 .....	5	5	E.E. 441, 442 .....	4	4
E.E. 321 .....		4	E.E. 411 .....		2
E.E. 350 .....		4	E.E. 461 .....		5
Ch.E. 378 .....	3		E.E. 591 .....		1
Physics 315 .....	3		E.E. 304 .....	3	
Religion .....	3	2	M.E. 320, 310 .....	3	3
			Group elective .....	3	
Total Hours .....	17	18	Total Hours .....	17	18

### Third Year Professional (Fifth Year)

	F	S	C.E. 303 .....	3
E.E. 462 .....	3		History 170 .....	3
E.E. 467 .....	2		Group electives .....	3
E.E. 541 .....	4		Restricted electives .....	3
E.E. 592 .....	1		Total Hours .....	16
				15

### Upper Division Courses

- 301, 302. Elements of Electrical Engineering.** (4:3:3 ea.) F.S. Prerequisites: Physics 211, 213; Math 334; concurrent registration in Math 313. **Staff**  
For students not majoring in electrical engineering. Study of electrical and magnetic circuit theory, electronics, and electrical machinery.
- 311, 312. Linear Circuit Analysis.** (5:4:3 ea.) F.S. Prerequisites: Physics 213; Math 334; Statistics 321; concurrent registration in Math 313, 336. **Staff**  
Transient and steady-state linear circuits based on Complex Variables and Laplace Transform. Signal flow graphs and operational diagrams are included.
- 321. Electrical Measurements.** (4:3:3) S. Prerequisites: Physics 211, 213; concurrent registration in E.E. 312. **Staff**  
The theory, use, limitations, accuracy, and calibration of bridges, potentiometers, indicating, recording and digital instruments, and the application of analog and digital operations to electrical measurements and instrumentation.
- 350. Magnetism and Solid State Electricity.** (4:4:0) S. Prerequisites: Ch.E. 378; Physics 315; Math 315; concurrent registration in E.E. 312, Math 316.  
Physical properties of crystalline solids, lattice vibration and energy, dielectrics, conduction, band theory, semiconductors, emission, magnetism, resonance, and relaxation, conventional magnetic circuits and applications to the saturable reactor and magnetic amplifier.
- 411. Feedback Concepts.** (2:2:0) S. Prerequisites: C.E. 304 or C.E. 302; Math 336; and either (a) E.E. 431 and concurrent registration in E.E. 442 or (b) E.E. 302. **Staff**  
Consideration of basic feedback concepts as applied to engineering systems. Root-locus and log-modulus criteria are presented as useful tools for analysis and design.
- 431, 432. Electrical Energy Conversion.** (4:3:3; 3:2:3) F.S. Prerequisites: E.E. 312, 350. **Staff**  
Single phase and polyphase transformers; energy conversion principles, D.C. and A.C. motors and generators; control system components.
- 441, 442. Electronic Circuits and Devices.** (4:3:3 ea.) F.S. Prerequisites: E.E. 312, 350. **Staff**  
The physical characteristics of solid state devices and tubes with applications applied to rectification, power supplies, basic and pushpull amplifiers, oscillators, and feedback circuits.
- 461. Electromagnetics.** (5:5:0) S. Prerequisite: concurrent registration in E.E. 442. **Staff**  
The general transmission line and transmission networks; static and dynamic electric and magnetic fields using classical and vector mathematics; wave guides, antennas, wave propagation, generators.
- 462. Communication Circuits.** (3:3:0) F. Prerequisite: E.E. 461. **Staff**  
Circuits and systems used in radio, television, and radar including microwave hardware and network theory.
- 467. Communications Laboratory.** (2:0:6) F. Prerequisites: E.E. 461; concurrent registration in E.E. 462. **Staff**  
Devoted to building and testing circuits studied and designed in parallel theory courses.

## Advanced Undergraduate or Graduate Courses

- 511, 512. Network Synthesis.** (3:3:0 ea.) Arr. Prerequisites: E.E. 312, 411. Staff  
Designed to present the basic theory for the synthesis of 2-terminal and 4-terminal networks. Various basic approaches are enumerated and applied to ladder and lattice types of filter networks. Insertion loss and phase shift characteristics and means of meeting such requirements.
- 516. Servomechanisms.** (3:3:0) Arr. Prerequisite: E.E. 411. Jonsson  
Theory and application of electrical and electro-mechanical automatic control systems.
- 523. Digital Computer Engineering.** (3:2:3) Arr. Prerequisite: fourth year standing as an engineer. Staff  
The logical design and operation of digital computers.
- 528. Analog Computer.** (2:2:0) Arr. Prerequisite: E.E. 302 or 442. Staff  
Theory and operation of summing, integrating, and differentiating circuits; function generators and operational amplifiers and their applications to analog computers. Also the application of signal-flow graphs to the analysis and simulation of analog computer systems.
- 531. Power Systems.** (2:2:0) Arr. Prerequisite: E.E. 432. Staff  
The analysis and design of electrical power distribution systems and a study of electrical power distribution system protection.
- 537, 538. Advanced Control Machinery Laboratory.** (1:0:3 ea.) S. Prerequisite: E.E. 462. Staff  
Each of these courses constitutes a block of experiments in the area of machinery control systems, machinery characteristics, and power distribution methods. Registration is permitted for either course or both courses simultaneously.
- 541. Switching, Timing, and Pulse Circuits.** (4:3:3) F. Prerequisite: E.E. 442. Staff  
Passive and active circuits utilizing tubes, transistors, diodes, and other devices.
- 542. Advanced Electronic Devices and Circuits.** (3:3:0) S. Prerequisite: E.E. 541. Staff  
Consideration is given to lumped instantaneous circuits including switching, memory, shaping, and generation.
- 545. Advanced Amplifier Circuits.** (3:3:0) F. Prerequisite: E.E. 442. Staff  
Considers many different devices used in amplifier circuits.
- 562. Advanced Communication Theory.** (3:3:0) Prerequisite: E.E. 462. Staff  
Transmission through electric networks, periodic sampling, pulse modulation, analysis of information—transmission systems, and noise considerations.
- 567, 568. Advanced Communications and Electronics Laboratory.** (1:0:3 ea.) S. Prerequisite: E.E. 462. Staff  
Each of these courses constitutes a block of experiments in the area of U.H.F. techniques, electronic circuits, communication systems, pulse forming networks, transmission lines and filters. Registration is permitted for either course or both courses simultaneously.
- 570. Illumination.** (2:2:0) Arr. Prerequisites: E.E. 312, 441. Monson  
Principles and design of artificial illumination for various applications; lamp characteristics; measurements; costs.
- 580. Elements of Acoustics.** (2:2:0) Arr. Prerequisite: fifth year standing in electrical engineering. Monson  
Fundamentals of sound production, transmission, and reception with an

introduction into sound application in public address and other engineering systems.

**581. Psycho-Acoustics.** (5:5:0) Arr. Prerequisite: E.E. 442. Staff

Speech and hearing from a communication engineering viewpoint. Analysis of speech and hearing processes is developed. Known experimental facts about speech and hearing are systematically studied and compared with calculated results. Methods of calculating and measuring articulation index of talker-listener pair when using any specified type of communication system.

**584, 585. Advanced Musical Acoustics.** (2:2:0 ea.) Arr. Prerequisites: Physics 561, 562, or E.E. 580. Monson

Technical study of acoustical behavior of different musical instruments; consideration of sound power output of single instruments and ensembles; stereophonic reproduction of music; possibilities of electronic musical instruments.

**587. Architectural Acoustics.** (3:3:0) Arr. Prerequisites: Physics 211, 212. Monson

Fundamental behavior of sound in rooms; effects of shape and size on perception of speech and music; proper use of public address and sound reinforcing systems, sound absorption and insulation properties of different kinds of room walls; kind and amounts of sound absorption materials to use in sound treatment of rooms and auditoriums.

**591, 592. Seminar and Field Trips.** (1:0:3 ea.) F.S. Prerequisite: fifth year standing in electrical engineering. Staff

Student and faculty presentation of special topics and subjects of current interest; visits to industries displaying varied types of electrical engineering applications. Participation on the annual field trip is required.

**598. Special Problem.** (Arr.) F.S. Staff

Registration by permission of professor sponsoring problem. A maximum of two credit hours may be applied toward filling the restricted elective requirement.

### Graduate Courses

**618. Non-Linear Analysis.** (3:3:0) Arr. Prerequisite: E.E. 516. Jonsson

Consideration of second order non-linear differential equations; problems of discrete systems, design in the phase plane; adaptive control systems; dynamic programming.

**619. Non-Deterministic Control Systems.** (3:3:0) S. Prerequisite: E.E. 516. Jonsson

Statistical design principles, decision theory, competitive situation, queuing systems, and linear programming as applied to control systems.

**623. Advanced Digital Computers.** (3:3:0) S. Prerequisites: E.E. 523, 541. Bartholomew

Advanced theory and operation of digital computers and their design and application to engineering, scientific, and control problems.

**645, 646. Microwave Devices.** (3:3:0 ea.) F.S. Prerequisite: E.E. 661, 662 concurrently. Staff

Consideration is given electronic and solid state devices which have particular application to the propagation, attenuation, modification, and detection of frequencies at and above the S-band.

**661, 662. Advanced Electromagnetic Fields.** (3:3:0 ea.) F.S. Prerequisite: E.E. 461 or equivalent. Staff

Advanced problems of wave propagation, reflection, and transmission; static and dynamic boundary value problems including general coordinate systems and conformal transformations; power losses in electromagnetic

systems and resonant cavity perturbations by approximation techniques. Topics in wave patterns, impedance functions and radiation applied to transmission lines and antennas.

- 697. Master's Candidate Research.** (1-4:Arr.:Arr.) Arr. Staff
- 698. Readings and Seminar.** (1:1:0) F. Prerequisite: graduate standing. Staff  
It is expected that every graduate student will make a literature study and report the results of such readings, outlining his proposed problem, at a seminar with other graduate students and faculty before commencing his research and thesis.
- 699. Thesis for Master's Degree.** (1-6:Arr.:Arr.) Arr. Prerequisite: graduate standing. Staff

## English

**Professors:** B. Clark (chairman, 307 McKay), Christensen, Farnsworth, Hart, Jacobs, Young.

**Associate Professors:** Britsch, Carroll (emeritus), Cheney, M. Clark, Larson, Spears, Tanner.

**Assistant Professors:** Bailey\*, Brady, Craig, Ellsworth, Evans, Gassman, Grass, McKendrick, Olson, Smart, Thomas, Thomson, Waterstradt, West, Wood.

**Instructors:** Alder, Blair, Cox, Gibbons, Harris, Heuston, Hill, Horton, Howe, Hyde, Hymas\*, Madsen, McNeil, Mitchell, Morrell, Ream, Ridenhour, Tate, C. Taylor, J. Taylor, Thayer.

**Special Instructors:** Bennion, Best, Blanch, Hayes, Nielsen, Parker, Wilson.



### Freshman English

(Marshall Craig, coordinator)

**Placement Test.** All freshmen are required to take an English placement test at the time of registration.

**Freshman Composition.** To satisfy the University requirement for freshman composition, all students must complete one of the following sequences: English 111 (or 110), 112; or English 115, 116; or English 118. Assignment is made on the basis of performance in the placement test. Students who demonstrate a need for remedial work take English 110, 112; students who demonstrate satisfactory ability take English 111, 112; students who demonstrate exceptional ability take English 115, 116; students in the Honors Program take English 118; students who demonstrate ability below that expected of college freshmen are required to take English 10 and to pass satisfactorily another placement test before registration in freshman composition. All students are required to take freshman composition during both semesters of the freshman year unless they are excused by the coordinator of freshman English.

### Scope of Instruction

The English Department offers courses in writing, literature, and the English language as follows: writing, remedial and methodology courses; grammar, word study, and language courses; novel courses; drama courses; comparative and world literature courses; American literature courses; combined American and English literature courses; English literature courses; and single author courses.

### Requirements for an English Major

The department requirement for a major is that a student complete at least thirty semester hours in English beyond freshman composition. The following program is prescribed (plus additional upper-division courses selected in consultation with the student's departmental adviser to bring the total to at least thirty hours):

	Hours
A. English 251. Fundamentals of Literature .....	3
B. English 221. English Grammar .....	3
<p>With the approval of the department chairman and the student's departmental adviser, another English course may be substituted for this requirement in grammar by the major who demonstrates unusual mastery of the principles of grammar.</p>	
C. English 361 or 362. American Literature .....	3
D. English 371 or 372 or 373. Early English Literature .....	3
E. English 374 or 375. Later English Literature .....	3
F. English 382 or 582. Shakespeare .....	3
G. English 490. Senior Seminar for English Majors .....	2

The program for English majors is sufficiently flexible that a student not only may elect a traditional emphasis in English literature, but, if he chooses, may emphasize American literature, or contemporary literature and creative writing, or comparative literature, or English language. A booklet entitled "The English Major at B.Y.U." outlining these programs is available on request.

The department provides a minimum reading list which the English major should obtain and begin to employ early in his academic program. During the semester prior to his graduation, he will be given a departmental examination based on the reading list, the senior seminar, and his over-all major program.

In addition to the requirements listed above, each English major is expected to complete two years of college study in one foreign language. In special cases, with the approval of the department chairman and the student's departmental adviser, this foreign language requirement may be reduced or waived. If the requirement is reduced to only one year of study in a foreign language, the major will be expected to complete at least thirty-five hours of credit in English beyond freshman composition, including at least one of the following: English 325, 426, 521, 529. If the foreign language requirement is waived, the major will be expected to complete at least forty hours of credit in English beyond freshman composition, including at least two of the following: English 325, 426, 521, 529.

### Requirements for a Teaching Major in English

The requirements for a teaching major in English and for the regular major are exactly the same except that the student completing a teaching major should take the courses required for teacher certification as outlined by the College of Education.

English is one of the subjects comprising the composite major in language arts designed for prospective teachers. (See College of Education.)

### Requirements for a Minor in English

Students planning a teaching minor in English should complete English 221, English 275 and 276, and either English 260 or 361 or 362. Other students minor-ing in English may select from the courses approved for a minor any combination of courses totaling at least fourteen semester hours beyond freshman composition. Such courses should be selected in consultation with the student's major departmental adviser and, if desired, the English Department staff.

### Recommendation on a Minor to be Selected by English Majors

In filling the University requirement for a minor, an English major may either (1) complete a regular departmental minor in any department of the College of Humanities and Social Sciences or the College of Fine Arts, or in philosophy or library science, or (2) complete a composite minor by selecting at least twenty semester hours from the following courses: Anthropology 111 and 241; Art 306, 307, 405, and 501; Dramatic Arts 315; History 304, 307, 335, and 373; Humanities 101; Journalism 101 and 410; Library Science 111, 370, and 572; Linguistics 325; Music 103, 484, and 485; Philosophy 380, 480, 482, 580, 581, 585, 586, and 587; Political Science 301; Psychology 510 and 550; Sociology 552.

Any exceptions in the minor program for English majors must be approved by the chairman of the English Department.

### Graduate Work in English

For qualified students seeking the M.A. degree in English, attractive scholarships, fellowships, and part-time teaching assistantships are available. Inquiries regarding these should be addressed to the chairman of the English department.

A graduate student may major in either English or American literature; he may minor in a subject outside the English Department or in English literature, American literature, or English language. In addition, he should complete the University requirements for the Master of Arts degree, which is the only graduate degree offered in the English Department.

Among the thirty hours required for a Master of Arts degree, each student must take the following courses:

	Hours
A. 615. Bibliography and Methods of Research .....	1
B. 525. Old English .....	3

The following courses must also be included if the student did not have them as an undergraduate:

A. 521. The History of the English Language .....	3
B. 550. The Criticism and Appreciation of Literature .....	3

In fulfilling the thesis requirements for a master's degree in English, a student may select any one of the following three options:

- (1) One long thesis on a topic demanding research, criticism, or both;
- (2) Three long papers written in three different areas of English or American language or literature and on topics demanding research, criticism, or both;
- (3) Two long papers written in two different areas of English or American language or literature and on topics demanding research, criticism, or both; and one long paper in the area of imaginative writing.

The work done under any of the above three options is under the direction of the student's advisory committee and must fulfill all of the requirements of form, date of submission, and binding that apply to a regular master's thesis.

The department stipulates that two hours of "B" grade or better in the series of English 318 and 319, or the equivalent directed experience in writing, be regarded as prerequisite for application to use imaginative writing as part of option (3) listed above. With this application, the student must forward to the graduate committee in English samples of his best writing so the committee may determine if he is qualified to use imaginative writing as part of his thesis requirement.

### General Education

A student filling his general education requirement in literature under the humanities and aesthetics requirement may take any literature course for which he has the proper background. See also Humanities 101.

### Remedial Courses

10. **Preparatory English.** (0:2:0) F.S. Craig, Staff  
Drill in essentials of English for all students not prepared for English 110 or 111. Students who complete course must pass placement test before registering for English 111.
15. **Remedial English for Juniors.** (0:3 for  $\frac{1}{2}$  semester:0) F.S.Su. (Fee \$15.00) Tate, Staff

- 55, 56. **English for Bilingual Students.** (0:5:0 ea.) F.S. Mitchell, Staff  
Service course for foreign students who are learning English. (This course may not be used to fill the freshman English requirement.)
99. **Problems in Thesis Writing.** (0:2:0) F.S.Su. Britsch, Evans, Staff

### Freshman Composition Courses

(These courses may not apply to the English minor.)

110. **Composition and Reading.** (3:5:0) F.S. Craig, Staff  
Same course and credit as English 111, but meets two additional days a week for the first half of the semester. For students who need additional help in freshman composition.
- 111, 112. **Composition and Reading.** (3:3:0 ea.) F.S.Su. Home Study also. Craig, Staff  
Course in reading and writing designed for development of skills of effective writing, of critical awareness of the resources of the language, and of skill in reading rapidly and critically. Review of grammar, readings, weekly themes, and long library paper.
- 115, 116. **Composition and Reading.** (2:2:0 ea.) F.S. Craig, Staff  
Alternate course to English 111, 112 designed for students who show superior ability and training in composition.
118. **Composition and Reading.** (3:3:0) F.S. Craig, Staff  
Accelerated course in freshman English for students in the Honors Program. Registration by special permission only.

### Lower Division Courses

215. **Expository Writing.** (2:2:0) F.S. (m) Prerequisite: English 112, 116, or 118. Staff  
Basic composition course intended to develop clarity, precision, and style in factual writing.
216. **Technical Writing.** (2:2:0) F.S. (m) Prerequisite: English 112, 116, or 118. Staff  
Composition course intended to develop accuracy and skill in writing scientific pamphlets, articles, reports, and memoranda.
218. **Creative Writing.** (2:2:0) F.S.Su. Home Study also. (m) Prerequisite: English 112, 116, or 118. Gibbons, Larson, Thayer, Staff  
Composition course intended to develop expressive skill and power through writing of short stories, poems, dramas, and/or informal essays.
221. **English Grammar.** (3:3:0) F.S.Su. Home Study also. (m) Prerequisite: English 112, 116, or 118. Britsch, Staff
225. **Vocabulary Building.** (2:2:0) F.S.Su. Home Study also (m) Young, Staff  
Service course intended to develop an effective vocabulary through study of prefixes, suffixes, and roots.
250. **Introduction to Literature.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Waterstradt, Staff  
Various types of literature—short story and novel, poetry, essay, biography, and drama—with a critical reading and analysis of significant examples of each type.
251. **Fundamentals of Literature.** (3:3:0) F.S.Su. Home Study also. Prerequisite: English 112, 116, or 118. B. Clark, Staff  
Required of all English majors and recommended for humanities majors and for students in the Honors Program.  
Basic course in literary appreciation and criticism, literary terminology, and writing. Should be taken in the sophomore year.

- 252. Introduction to Poetry.** (2:2:0) F.S. (G-HA m) Brady, Evans, Hart, Larson  
Appreciation course in poetry, emphasizing critical reading and analysis of significant poems of various types.
- 253. Introduction to Drama.** (2:2:0) F.S. (G-HA m) Monson, Tanner, Waterstradt  
Appreciation course in drama, with attention given to various forms—tragedy, comedy, farce, melodrama, and modern problem play—and with a critical reading of famous examples of each type.
- 254. Introduction to Biography.** (2:2:0) S. (G-HA m) Young  
Short biographies of some famous statesmen, patriots, adventurers, scientists, inventors, painters, writers, and others, including Hitler, Napoleon III, George III, Edison, Wilson, Jefferson, Lincoln, John Brown, Goethe, Gauguin, the Curies, and Dolly Madison.
- 256x. Classic Myths.** (3) Home Study only. (G-HA) Carroll  
The characters and stories in classical mythology in their relationship to literature and modern culture and life.
- 260. Masterpieces of American Literature.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Thomson, Staff  
Selected readings in American literature from colonial times to the present.
- 270. Masterpieces of English Literature.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Gassman, Tanner, Staff  
Selected readings in English literature from medieval times to the present.
- 275, 276. Survey of English Literature.** (5:5:0 ea.) F.S.Su. (G-HA m) Prerequisite: English 112, 116, or 118. Brady, Staff  
Critical survey of English literature from Beowulf to the present, emphasizing major literary works, language development, and interpretive writing. Intended especially for teaching minors in English.
- 282. Shakespeare.** (2:2:0) F.S.Su. Home Study also. (G-HA m) Grass, Young, Staff  
Appreciation course in Shakespeare, with an interpretive reading of about eight of his great dramas.

#### Upper Division Courses

- 318, 319. Advanced Creative Writing.** (2:2:0 ea.) F.S.Su. Home Study also. (m) Prerequisite: English 218 or special permission of the instructor or the department chairman. Larson  
Composition course intended to give experienced student writers opportunity to further develop their skills in writing poetry, fiction, and drama.
- 325. Introduction to Linguistics.** (2:2:0) S. (m) Blair  
(See Linguistics 325, Language Department.)
- 332. The English Novel from Defoe through Dickens.** (3:3:0) F.S. Home Study also. (G-HA m) Brady, B. Clark, Gassman  
English prose fiction from the beginnings to the mid-nineteenth century, with emphasis on Defoe, Richardson, Fielding, Smollett, Sterne, Scott, Austen, Trollope, Thackeray, the Brontës, and Dickens.
- 333. The Modern English Novel.** (3:3:0) F.S. Home Study also. (G-HA m) Brady, B. Clark  
The English novel from the mid-nineteenth century to the present, with emphasis on George Eliot, Meredith, Hardy, Conrad, Bennett, Galsworthy, Lawrence, Maugham, Joyce, Woolf, Huxley, and several contemporary novelists.
- 335. The American Novel to Dreiser.** (2:2:0) F. Home Study also. (G-HA m) Jacobs, Olson, Smart  
Nineteenth century American novelists, with emphasis on Cooper, Hawthorne, Melville, Twain, Howells, and James.

336. **The Modern American Novel.** (2:2:0) S. Home Study also. (G-HA m)  
M. Clark, Ellsworth, Jacobs  
Twentieth century American novelists, with emphasis on Dreiser, Cather, Lewis, Hemingway, Faulkner, Steinbeck, Wolfe, and Fitzgerald.
338. **The European Novel.** (3:3:0) F. (G-HA m) M. Clark  
The works of the principal European novelists, including Cervantes, Flaubert, Zola, Turgenev, Dostoevsky, Tolstoy, Mann, Kafka, and others.
345. **The Spirit of Tragedy in Literature.** (3:3:0) S. (G-HA m) Christensen  
Tragedy as experienced in drama from the Greeks to the present time.
- 346x. **Greek Life and Drama.** (2) Home Study only. (G-HA) Carroll  
Ancient Greek mythology and civilization and some of the dramas by Aeschylus, Sophocles, Euripides, and Aristophanes.
350. **The Bible as Literature.** (2:2:0) F.S.Su. Home Study also. (G-HA m)  
Ellsworth, Thomas, Staff
355. **World Classics.** (3:3:0) F.S.Su. (G-HA m) Britsch, Craig, McKendrick  
Greek and Roman epic and drama, and European classics of the Middle Ages and Renaissance, in translation, with emphasis on Homer, Aeschylus, Sophocles, Euripides, Virgil, and Danté.
356. **World Classics.** (3:3:0) F.S.Su. (G-HA m) Britsch, Larson, Staff  
European masterpieces of neoclassicism, romanticism, realism, naturalism, and symbolism in translation.
359. **The Short Story.** (2:2:0) F.S.Su. Home Study also. (G-HA m)  
Cheney, B. Clark, Staff  
Critical study of selected great short stories—American, English, and European—with emphasis on 20th century stories.
361. **Early American Literature.** (3:3:0) F.S.Su. (G-HA m)  
Jacobs, Thomson, Staff  
From the beginnings through writers of the mid-nineteenth century.
362. **Later Nineteenth Century American Literature.** (3:3:0) F.S.Su. (G-HA m)  
Jacobs, Thomas, Staff  
From the mid-nineteenth century to its end.
366. **Modern Poetry.** (2:2:0) F. Home Study also. (G-HA m) Hart, Larson  
Major English and American poets of the 20th century.
367. **English and American Folk Poetry.** (2:2:0) F. (G-HA m) Cheney  
English and Scottish ballads and American folk songs.
371. **English Literature to 1500: the Medieval Period.** (3:3:0) F.S.Su. (G-HA m)  
Christensen, McKendrick  
English literature from beginnings to 1500, with emphasis on its relationship to other European literatures.
372. **English Literature from 1500 to 1660: the Renaissance Period.** (3:3:0) F.S. Su. (G-HA m) Larson, Wood, Young  
English dramatic and non-dramatic poetry and English prose of Renaissance period, including Milton but excluding Shakespeare.
373. **English Literature from 1660 to 1780: the Neo-Classical Period.** (3:3:0) F. S.Su. (G-HA m) Gassman, Hart, Monson  
English literature from Restoration through Augustan Age of Reason to beginnings of Romanticism, including works of Dryden, Defoe, Swift, Fielding, Pope, and Johnson.
374. **English Literature from 1780 to 1832: the Romantic Period.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Cheney, B. Clark, Tanner  
English literature of Age of Romanticism, including works of Blake, Wordsworth, Coleridge, Scott, Lamb, Byron, Shelley, and Keats.

375. **English Literature from 1832 to 1900: the Victorian Period.** (3:3:0) F.S.Su. (G-HA m) Britsch, B. Clark, Farnsworth  
English literature of middle and later 19th century, including works of Carlyle, Ruskin, Dickens, Browning, Tennyson, Arnold, and the Rossettis, Morris, Swinburne, Meredith, and Hardy.
380. **Twentieth Century Literature.** (5:5:0) F.S.Su. (G-HA m) M. Clark, Staff  
American, English, and some Continental literature, with emphasis on American.
382. **Shakespeare.** (3:3:0) F.S.Su. (G-HA m) Britsch, Christensen, Young  
Five or six major plays studied intensively.
426. **Semantics.** (2:2:0) F. (m) Evans, McKendrick, Thomas  
Function of words in written and spoken communication.
481. **Chaucer.** (3:3:0) F. (G-HA m) Christensen
483. **Milton.** (2:2:0) S. (G-HA m) Christensen
487. **Matthew Arnold.** (2:2:0) F. (G-HA m) Christensen
490. **Senior Seminar for English Majors.** (2:2:0) F.S.Su.  
B. Clark, M. Clark, Hart, Jacobs
495. **Individual Readings.** (1-2:2-8:0 ea.) F.S.Su. Staff  
Available only to English majors and students on foreign tours. English majors in residence will be limited to a maximum cumulative total of 2 credit hours, students on tour to a maximum total of 4 credit hours.

#### Advanced Undergraduate or Graduate Courses

- 500-509. **Eminent American Writers.** (1:1:0 ea.) F.S.Su. M. Clark, Staff  
Different writers are treated each year in this series.
- 510-519. **Eminent English Writers.** (1:1:0 ea.) F.S.Su. McKendrick, Staff  
Different writers are treated each year in this series.
521. **History of the English Language.** (3:3:0) S.Su.  
Christensen, McKendrick, Monson  
Course descriptive of the English language in various stages of its development, with background of related historical events.
525. **Old English.** (3:3:0) F.Su. Undergraduate prerequisite: approval of instructor.  
McKendrick, Young
526. **Middle English.** (2:2:0) S. Undergraduate prerequisite: approval of instructor.  
Christensen, Monson
529. **Structure of American English.** (3:3:0) F. Cox, Staff  
Application of the methods of linguistic science to the description of the phonology, morphology, and syntax of American English.
541. **English Drama to 1642.** (2:2:0) F. Young  
Religious drama of the Middle Ages, court plays, and popular drama of the Renaissance, excluding Shakespeare.
542. **Restoration and Eighteenth Century Drama.** (2:2:0) S. Gassman  
English drama from 1660 to 1800, with emphasis on high comedy, sentimental comedy, and heroic tragedy.
543. **Modern English and American Drama.** (2:2:0) F. Tanner, Waterstradt  
Major English and American dramatists since 1890.
550. **The Criticism and Appreciation of Literature.** (3:3:0) S.Su. Hart, Thomas  
Critical theories and standards of value.
572. **European Literature of the Renaissance.** (3:3:0) F. Spears  
Comparative study of continental European literature of the Renaissance in relation to English literature.

573. **European Literature of the 17th and 18th Centuries.** (3:3:0) S. Spears  
Comparative study of continental European literature of the 17th and 18th centuries in relation to English literature.
582. **Extended Readings in Shakespeare.** (3:3:0) F.S. Young  
Extensive study of the body of Shakespeare's works.

### English Education

377. **Secondary Teaching Procedures.** (3:3:3) F.S. Prerequisite: English 221, 251; and Education 301 or 305 or equivalent.  
For course description and fee see Education 377.
420. **Literature for Adolescents.** (2:2:0) S.Su. Staff  
Critical examination of the body of literature written for adolescent readers, and of effective methods of teaching literature in the secondary schools. Intended especially for English teaching majors.
479. **Secondary Student Teaching.** (4-8:1:20-30) F.S. Prerequisite: English Education 377. West  
For course description and fee see Education 479.
669. **Teaching English in the Secondary School.** (2:2:0) S.Su. West  
Intensive consideration of literature, writing, grammar, and reading materials appropriate to English courses in secondary schools and the effective use of these materials.

### Graduate Courses

615. **Bibliography and Methods of Research.** (1:1:0) F.Su. Gassman, Larson
625. **Beowulf.** (2:2:0) S. McKendrick, Young
631. **The English Novel.** (2:2:0) F.Su. Brady, B. Clark
635. **The American Novel.** (2:2:0) S.Su. M. Clark, Smart
641. **The English Drama.** (2:2:0) S.Su. Craig
661. **Colonialism and Puritanism in American Literature.** (2:2:0) S.Su. Jacobs, Thomson
662. **Romanticism in American Literature.** (2:2:0) F.Su. Thomas
664. **Realism and Naturalism in American Literature.** (2:2:0) F.Su. M. Clark, Jacobs, Thomson
671. **The Medieval Period in English Literature.** (2:2:0) S.Su. Christensen, McKendrick
672. **The Renaissance in English Literature.** (2:2:0) F.Su. Larson, Young
673. **Neo-Classicism in English Literature.** (2:2:0) S.Su. Gassman, Hart
674. **Romanticism in English Literature.** (2:2:0) F.Su. Cheney, B. Clark
675. **The Victorian Age in English Literature.** (2:2:0) S.Su. B. Clark, Farnsworth
680. **Twentieth Century Literature.** (3:3:0) F.Su. Hart, Larson
682. **Shakespeare.** (2:2:0) F.Su. Hart
691. **Research in Folklore.** (2:2:0) S. Cheney  
Directed study and research in folk tales, folk poetry, etc., especially as they are related to the Mormon heritage and tradition.
695. **Individual Readings in English.** (1-2:1-4:0) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) F.S.Su. Staff

Food and  
Nutrition

Professors: Bennion (chairman, 2218 SFLC),  
Morris.

Assistant  
Professor: Monsen.

Instructors: Bryner, Hatch, Sovine.



The Department of Food and Nutrition is organized to help the student understand the basic principles which underlie the role played by food in the maintenance of optimum health and the preparation of food of high culinary and nutritive quality. Application of principles is made through the planning, preparation, serving, and evaluation of attractive and nourishing family meals and through the preparation and evaluation of single items under experimentally controlled conditions. The selection of foods to meet human nutritional needs is justified theoretically and practically.

Courses in this department provide background for training in such professional fields as hospital dietetics, public health nutrition, school lunch or restaurant administration, test kitchen work, food demonstration, college teaching, and research.

The courses in this department are planned to be of value to both men and women.

For majors in food and nutrition a minimum of 24 credit hours in the department is required. For graduation from the College of Family Living these hours must be combined with enough credits in the college to total 35 hours. Included in these 35 hours shall be a total of 12 hours from the following departments with at least three hours being taken from each department: clothing and textiles, housing and home management, and human development and family relationships.

PROGRAM FOR MAJORS

Freshman Year		Sophomore Year	
	Hours		Hours
Religion .....	4	Religion .....	4
English (determined by placement test) .....	6	Physical education .....	1
Physical education and health .....	3	Chemistry 284 .....	4
Chemistry 101, 102 .....	10	Physics 100 .....	3
Psychology 111 .....	3	Bacteriology 331 .....	4
Zoology 105 .....	3	Zoology 261 .....	4
Homemaking Education 91 .....	0	Art .....	2
H.D.F.R. 210 .....	3	Economics 101 .....	3
		Food and Nutrition 264, 265 .....	4
		Electives .....	3
Total Hours .....	32	Total Hours .....	32

Junior Year		Senior Year	
	Hours		Hours
Religion .....	4	Religion .....	4
History 170 .....	3	Humanities and aesthetics .....	2-3
Humanities and aesthetics .....	2-3	Food and Nutrition 345, 455, 464, 590 .....	10
Housing and Home Management 235 .....	3	Bacteriology 361 .....	2
Clothing and textiles .....	3	Electives .....	13-14
Food and Nutrition 310, 335, 340, 370 .....	12	Total Hours .....	32
Electives .....	4		
Total Hours .....	31-32		

Students preparing for a dietetic internship must elect Food and Nutrition 380, 455, 470, 472, and 475; Accounting 201; Homemaking Education 377 or E.R.S. 304; and Psychology 330.

A postgraduate internship of twelve months is required for positions in hospital dietetics. Certain centers have been approved by the American Dietetic Association to give internship training. A list of these centers, as printed by the American Dietetic Association, is available in the office of the department chairman.

Students preparing for positions in business should elect Journalism 101, Speech 101 or 102, and Instruction 406.

Additional courses recommended for students in food and nutrition are Chemistry 220, Housing and Home Management 350, Bacteriology 361, and Instruction 406.

#### Lower Division Courses

- 110. Introductory Food and Nutrition.** (2:1:2) F.S. Home Study also. Staff  
Open to all students. Accepted techniques of food preparation for maximum retention of nutritive value are taught through lecture and laboratory experiences.
- 115. Essentials of Nutrition.** (2:2:0) F.S. Home Study also. Hatch  
For non-majors.  
Basic concepts of human nutrition and their application in achievement and maintenance of optimum health.
- 245. Nutrition of Mother and Child.** (2:2:0) F.S. Monsen  
Open to all students. The nutritional needs of expectant mothers, infants, and children, and the proper choice of food to meet these needs.
- 255. Fundamentals of Nutrition.** (3:2:2) F.S. (m) Prerequisites: Zoology 105 or 261; Chemistry 102. Monsen  
For non-majors. Majors should elect Food and Nutrition 335.  
Basic concepts of human nutrition at all ages. Achievement and maintenance of optimum health for all family members.
- 264. Introduction to Experimental Foods.** (2:2:0) F.S. (m) Prerequisites: completion of or concurrent registration in Chemistry 102; Bacteriology 121 or 331; concurrent registration in Food and Nutrition 265. Bennion  
An experimental approach is used to gain an understanding of the purpose of ingredients and procedures used in the preparation of some common foods. The underlying theory of and practice in the preservation of food is included.
- 265. Introduction to Experimental Foods, Laboratory.** (2:0:4) F.S. Prerequisite: concurrent registration in Food and Nutrition 264. Hatch

#### Upper Division Courses

- 310. Food Patterns of Various Cultures.** (2:1:2) F. (m) Prerequisites: Food and Nutrition 110 or 264 and 265. Sovine  
The social, religious, economic, and aesthetic significance of food customs of various cultures.

- 335. Nutrition.** (5:4:2) F. Prerequisites: Zoology 261; Chemistry 284 or equivalent. Morris  
The essential nutrients and their functions in nutrition; how to determine and satisfy the food needs of the normal individual.
- 340. Meal Management.** (3:1:6) F.S. (m) Prerequisites: Food and Nutrition 264, 265. Fee \$5.00. Bryner  
Organization and management of time, energy, and finances in planning and preparing family meals. Experience in use of various types of service.
- 345. Nutrition in Human Growth and Development.** (2:2:0) S. (m) Prerequisite: Food and Nutrition 255 or 335. Monsen  
The effects of the physical stresses of pregnancy and growth upon the nutritional needs of the individual.
- 370. Quantity Food Preparation and Service.** (2:1:2) F. (m) Prerequisites: Food and Nutrition 110 or 264 and 265; or special permission. Sovine  
Introductory course—standard techniques, procedures of preparation and service to large groups. Planning menus and quantities of food to be purchased.
- 380. Quantity Food Purchasing.** (2:2:0) F. Prerequisites: completion of or concurrent registration in Food and Nutrition 370. Sovine  
Principles and methods of buying food for various types of institutions with emphases on specifications and factors effecting quality and food cost control. Field trips required.
- 455. Diet Therapy.** (3:2:2) S. Prerequisite: Food and Nutrition 335.  
The role of nutrition in times of stress and special need and as a therapeutic aid in treatment of disease.
- 464. Experimental Foods.** (3:2:3) F. Prerequisites: Food and Nutrition 264; Chemistry 284. Staff
- 470. Advanced Quantity Food Production.** (2:1:3) S. Prerequisites: Food and Nutrition 370 and 380 (or 380 concurrently). Sovine  
Standard methods of quantity food production, menu planning for institutions, food costs, and experience in food service.
- 472. Food Management in Institutions.** (3:2:4) S. Prerequisite: Food and Nutrition 470. Sovine  
Management of financial and personnel problems; experience in food service units on Brigham Young University campus and in school lunch kitchens.
- 475. Institution Equipment and Layout.** (2:2:0) S. Prerequisite: Food and Nutrition 470 or permission of instructor. Staff  
Planning of institution kitchens; the selection and maintenance of equipment and furnishings with emphases on materials, construction, and specifications. Field trips required.

#### Advanced Undergraduate or Graduate Courses

- 590. Readings in Food and Nutrition.** (1-2:1-2:0) Arr. Prerequisite: 10 credit hours in food and nutrition or consent of instructor. Bennion
- 594. Special Problems in Food.** (1-2:0:3-6) Arr. Prerequisite: permission of instructor and chairman of department. Bennion  
For students who have completed at least 12 hours in food and nutrition including Food and Nutrition 590. Independent study of a special problem in food under direction of an instructor.
- 595. Special Problems in Nutrition.** (1-2:0:3-6) Arr. Prerequisite: permission of instructor and chairman of the department. Monsen, Morris  
For students who have completed at least 12 hours in food and nutrition including Food and Nutrition 590. Independent study of a special problem in nutrition under direction of an instructor.

## Graduate Courses

635. **Advanced Human Nutrition.** (2:2:0) Arr. Prerequisite: Food and Nutrition 335 or equivalent. Morris  
Advanced study of the principles of human nutrition.
645. **Advanced Child Nutrition.** (2:2:0) Arr. Prerequisites: Food and Nutrition 335 and 345 or equivalent. Monsen
664. **Science and Experimental Foods.** (3:2:3) Arr. Prerequisite: Food and Nutrition 464. Bennion  
Protein foods; simple colloidal systems, gels, emulsions, and foams.
666. **Science and Experimental Foods.** (3:2:3) Arr. Prerequisite: Food and Nutrition 464. Bennion  
Batters, doughs, and starch-thickened products.
672. **Recent Advances in Foods.** (2:2:0) Arr. Prerequisite: Food and Nutrition 654 or equivalent. Bennion
675. **Recent Advances in Nutrition.** (2:2:0) Arr. Prerequisite: Food and Nutrition 535 or equivalent. Morris
690. **Seminar in Food.** (1-2:1-2:0) Arr. Bennion
691. **Seminar in Nutrition.** (1-2:1-2:0) Arr. Monsen
695. **Methods of Research in Nutrition.** (2:1:4) Arr. Prerequisite: Food and Nutrition 635. Monsen, Morris
696. **Methods of Research in Foods.** (2:1:4) Arr. Prerequisite: Food and Nutrition 664 or 666. Morris
699. **Thesis for Master's Degree.** (2-4:Arr.:Arr.) Bennion, Monsen, Morris

## Forum Assemblies

Herald R. Clark, in charge (154 JK)




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(An interdepartmental area only)

In 1958 Brigham Young University inaugurated a weekly series known as forum assemblies. The purpose of the assemblies is to bring to our campus men and women of recognized pre-eminence in their chosen fields and to hear their stimulating messages. Among those invited to appear in 1961-62 were Gen. Carlos Romulo, Ogden Nash, Margaret Mead, and others of similar stature.

One-half hour credit per semester or one hour per year may be earned by registering for and attending a minimum of eleven forums each semester. Attendance is based on the honor system. Forum assembly credit may be carried above the normal class load. Grading, on a "pass" basis, will have no effect on grade-point average. Students must register for forum assemblies on the basis of their standing as freshmen, sophomores, juniors, or seniors. All students are encouraged to attend these provocative, intellectually rewarding assemblies.

### Lower Division Courses

- 101, 102. Lectures in Contemporary Civilization. ( $\frac{1}{2}$ :1:0 ea.) F.S.  
Forum Lecturers  
Open to freshman students only.
- 201, 202. Lectures in Contemporary Civilization. ( $\frac{1}{2}$ :1:0 ea.) F.S.  
Forum Lecturers  
Open to sophomore students only.

### Upper Division Courses

- 301, 302. Lectures in Contemporary Civilization. ( $\frac{1}{2}$ :1:0 ea.) F.S.  
Forum Lecturers  
Open to junior students only.
- 401, 402. Lectures in Contemporary Civilization. ( $\frac{1}{2}$ :1:0 ea.) F.S.  
Forum Lecturers  
Open to senior students only.

**Assistant Professors:** Layton (chairman, 167 D, HJG),  
Millett, Tuttle.  
**Instructor:** Horiuchi.

## Geography



The Department of Geography serves three classes of students: (1) professional major students, (2) non-professional major students who wish to build a broad cultural education around a central interest in geography, and (3) students majoring in other fields who desire some acquaintance with the contribution of geography to the understanding of the world and its problems.

The Department of Geography confers the Bachelor of Science degree. The student may choose either of the following options: (a) twelve semester hours credit in one foreign language, three of which may be counted as general education in the humanities, or (b) courses equaling nine semester hours of credit in mathematics, statistics, logic, and science. The above courses must be approved by the Geography Department and must be taken in at least two different departments.

For majors, the department provides background for work in the following general fields of specialization: area analysis, cartography, and teaching.

The following courses are required for a major:

Lower division: Geography 101, 211, 231; Geology 101 and 102 or 111.

Upper division: Geography 351, 401, 504, 598; at least two of the following regional courses: 455, 460, 470, 475, 480; at least two of the following systematic courses: 441, 522, 533; and electives in geography to make a total of 30 hours.

It is suggested that a minor in geography include Geography 101 and 120. The remaining eight hours should be chosen from the courses marked (m) that are most closely related to the major field.

If not otherwise stated, the class will be taught each year during the term indicated.

### Lower Division Courses

**101. Introduction to Geography.** (3:3:0) F.S. Home Study also. (G-SS m)

Staff

A general survey of the distribution of, and processes concerned with, the different factors of man's natural environment, i.e., landforms, climate, soils, natural resources.

**120. Geography and World Affairs.** (3:3:0) F.S. Home Study also. (G-SS m)

Staff

A survey of the world stressing the human and economic geography of major political regions. Of special interest to all students who wish to broaden their knowledge of the problem areas of the world today.

- 153. Geography of Utah.** (2:2:0) S. Layton  
The distribution of climates, landforms, vegetation, agriculture, mining, manufacturing, and service industries as related to present population and future growth patterns in Utah.
- 211. Introduction to Maps and Air Photos.** (2:1:2) F. (m) Layton  
Maps and air photos as tools for teaching and research. Sources of maps and photos and practice in their use.
- 231. Economic Geography.** (3:3:0) F.S. Home Study also. (G-SS m) Staff  
A brief survey of the world's resource pattern. Origin, importance, and movement of major agricultural and mineral commodities in world affairs.

### Upper Division Courses

- 305. Physiography of North America.** (2:2:0) S. (m) Prerequisite: consent of instructor. Millett, Tuttle  
The characteristics of the landforms and the processes which brought them into being.
- 312. Map Drawing.** (2:0:4) S. (m) Layton  
Maps as a means of recording information. Methods of illustrating various types of data and preparation of maps for reproduction and publication.
- 332. World Mineral Resources.** (2:2:0) S. (m) Prerequisite: Geography 231. Layton  
Geography of reserves, production, and uses of the world's major metallic and non-metallic minerals.
- 351. North America.** (3:3:0) F.S. Home Study also. (G-SS m) Tuttle  
The United States and Canada including climates, landforms, natural resources, agriculture, and industries.
- 401. Geography of Climates.** (2:2:0) F. (m) Prerequisite: Geography 101 or consent of instructor. Tuttle  
The elements, controls, distribution, and classification of the climates of the earth.
- 441. Political Geography.** (3:3:0) F.S. (G-SS m) Horiuchi  
The physical, political, economic, and social elements of political geography and an analysis of the power structure of the world's major powers.
- 455. Latin America.** (3:3:0) F. Home Study also. (m) Layton  
Physical and cultural geography of the nations of South and Middle America.
- 460. Europe.** (3:3:0) S. Home Study also. (G-SS m) Millett  
The land and how man is utilizing the natural and human resources of Europe. Emphasis on human geography of major political regions.
- 470. Asia.** (3:3:0) S. (m) Horiuchi, Tuttle  
Geography of one-third of the earth and two-thirds of its people. Man's use of his natural environment.
- 475. Africa.** (3:3:0) F. (m) Staff  
Systematic regional treatment of physical, economic, political, and cultural geography of Africa.
- 480. Australia and New Zealand.** (2:2:0) F. (Offered 1962-63 and alternate years) (m) Staff  
Physical and cultural geography of Australia, New Zealand, and Tasmania.
- 490, 491. Readings.** (1:1:0) F.S. Staff  
For majors only or by permission of department chairman.
- 493. Special Problems.** (1:2:1-2:0) F.S. Staff  
For majors only.

## Advanced Undergraduate or Graduate Courses

504. **Geographic Field Techniques.** (2:1:2) S. Staff  
For majors only.
522. **Urban Geography.** (2:2:0) F. (m) Layton  
Distribution of urban areas, their development, internal land use patterns, and functions in the world's economy.
533. **Industrial Geography.** (3:3:0) S. (m) Prerequisite: Geography 231. Layton  
A systematic analysis of location patterns of major industries in the United States; raw materials, power resources, and other factors in industrial location.
552. **United States.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Prerequisite: Geography 351. Tuttle  
A concentrated study of various phases of the geography of the U.S. Considerable research and reporting by individual students is expected.
556. **South America.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Prerequisite: Geography 455. Layton  
Physical and cultural landscapes of geographic regions of South America.
557. **Caribbean Area.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Prerequisite: Geography 455. Layton
561. **Western Europe and the Mediterranean.** (2:2:0) S. (m) Prerequisite: Geography 460. Millett  
Systematic and regional geography of non-Communist Europe.
562. **U.S.S.R. and Its Satellites.** (2:2:0) F. (m) Prerequisite: Geography 460 or 470 or consent of instructor. Tuttle  
Physical features, resources, agriculture, industries, and distribution of peoples.
571. **Orient.** (2:2:0) F. (Offered 1962-63 and alternate years) (m) Prerequisite: Geography 470. Horiuchi, Tuttle  
Systematic and regional geography of the Orient.
580. **Geography of Underdeveloped Areas.** (2:2:0) S. (m) Prerequisite: consent of instructor. Horiuchi  
Physical, economic, and human geography as it affects the world's underdeveloped areas with emphasis on future development possibilities.
598. **Seminar.** (1:1:0) Arr. Staff  
Required of all majors.

This course also counts in geography:

History 585. **Historical Geography of the United States.** (2:2:0)

## Graduate Courses

601. **Physical Geography.** (2:1:2) F. Staff  
Required of all graduate majors.
620. **Cultural Geography.** (2:1:2) S. Staff  
Required of all graduate majors.
- 690, 691. **Readings.** (1:1:0) F.S. Staff  
For graduate majors only.
695. **Special Problems.** (1-2:1-2:0) Arr. Staff  
For graduate majors only.
- 696, 697. **Research.** (2:2:0) F.S. Staff  
For graduate majors only.
698. **Graduate Seminar.** (1:1:0) Arr. Staff  
Required of all graduate majors.
699. **Thesis for Master's Degree.** (1-4:1-4:0) F.S. Staff

## Geology and Geological Engineering Science



**Professors:** Hintze (chairman, 290 ESC), Bissell, Bullock, Hansen\*.

**Associate Professors:** Clark, Phillips, Rigby.

**Assistant Professors:** Brimhall, Bushman.

**Curator:** Jensen.

Geology, a science of great diversification, offers attractive career possibilities to students whose interests range over much of the physical and biological sciences. For example, the student inclined to the life sciences may choose a career in paleontology or paleobotany, and may work for a petroleum company, state or federal geological survey, research institution or museum, or an educational institution; the student who favors chemistry may choose mineralogy or geochemistry, and may work for the foregoing types of organizations as well or for industrial, mining, or mineral exploration firms. Geophysics is an important field of learning as evidenced by the recent International Geophysical Year, and the student who favors physics may specialize in nuclear geophysics, geomagnetism, meteorology, or many other fields. The students preparing to teach in public schools may choose a composite major or minor (see composite major in index) in geology.

An ideal balance between indoor and outdoor work, opportunity for wide travel, somewhat better than average salaries, and circumstances favorable for scholarly and scientific work are some of the appealing features of the profession.

Geological science is currently passing through a period of rapid change, and the increasing persistent trend emerging is that geologists are supplementing classical observation methods with the mathematical and statistical methods of analysis which have been so fruitful in the other fields of physical science. The geologist is becoming more closely associated with the chemist, the physicist, and the engineer as the technological age unfolds.

The four-year program in geology consists of a core curriculum required of all students (see outlines below) which emphasizes the rudiments of geology, chemistry, biology, mathematics, and physics. Such training affords maximum flexibility for work opportunities upon graduation. Ideally, however, the capable student should look beyond the bachelor's degree to one or more years of post-graduate work at B.Y.U. or another institution. Such a plan is not necessary, of course, but definite advantages result from such a procedure. Students pursuing careers in geochemistry, paleontology, or geophysics take more than the minimum number of courses. Successful completion of the core curriculum plus electives chosen in consultation with the departmental adviser prepares the student for graduate work in these fields at leading universities of the country.

It is expected that a student majoring in geology shall have met the general entrance requirements of the College of Physical and Engineering Sciences. All students majoring in geology are required to complete the following courses (or their equivalents at another institution) to obtain the bachelor's degree: Geology

111, 112, 251, 252, 311, 312, 313, 410, 460, 470, 480, and 492. Chemistry 111, 112; Mathematics 111, 112; and Physics 201, 202 or 211, 213 are required of all geology majors. In partially fulfilling the group requirements of the University, this department requires Anthropology 101; Archaeology 200; Botany 105; Geography 231; eight hours of language; and Zoology 105.

The Department of Geology offers training for the master's degree and the Doctor of Philosophy degree, with specialization in various fields of geology. The graduate student is urged to acquire a broad foundation in geology and to secure adequate training before he concentrates on a chosen branch of the subject. To this end certain fundamental course work is recommended for all students. The course offerings are sufficiently varied and complete so all students may select courses according to their needs and inclinations in consultation with their advisers.

The graduate program of the Department of Geology offers instruction in five broad divisions of geology, with the following course offerings in each division: (1) economic geology—Geology 507, 512, 520, 530, 535, 540, 545, 551, 591, 621, 641, 646, 655, 661, 662, and 678; (2) mineralogy and petrology—Geology 507, 512, 540, 545, 551, 591, 653, 655, 661, 662, and 671; (3) paleontology—Geology 507, 512, 551, 574, 575, 576, 580, 581, 582, 591, 670, 671, 680, 681, 682, and 685; (4) stratigraphy and sedimentation—Geology 507, 512, 551, 574, 575, 576, 591, 653, 670, 671, and 678; (5) structural, field, and dynamic geology—Geology 507, 511, 512, 530, 551, 591, 610, 615, 670, and 671.

**Master's Degree.** (For general requirements see the Graduate School catalog.) Requirements for a master's degree in geology include: (1) at least sixteen hours of formal course work in the major field and at least ten hours of formal course work in one or two minor fields; (2) a written exploratory examination at the beginning of the graduate program; (3) a comprehensive oral examination on the graduate course work prior to his thesis defense; (4) a thesis embodying the results of research under a faculty member's supervision; and (5) a final oral examination on the research thesis.

**Doctor of Philosophy Degree.** (For general requirements see the Graduate School catalog.) Requirements for a Doctor of Philosophy degree in geology include: (1) a minimum of thirty hours of formal course work in the major field and a minimum of fifteen hours of formal course work in each of two minor fields (the minors may be in a related field outside of the Department of Geology in which upper division and graduate courses will be acceptable); (2) one degree or one year of acceptable graduate study at another institution; (3) a comprehensive examination after sixty hours of graduate work and at least one academic year prior to graduation; (4) dissertation embodying the results of original research; and (5) defense of his dissertation before a formally appointed committee at the close of his final year of study.

#### Required Minimum Course of Study Leading to the Degree of Bachelor of Science in Geology

Freshman Year			Sophomore Year		
	F	S		F	S
Geology 111, 112 .....	4	4	Geology 251, 252 .....	4	4
Mathematics 111, 112 ..	5	5	Chemistry 111, 112 .....	4	3
English 111, 112 .....	3	3	History 170 .....		3
Zoology 105 .....		3	Botany 105 .....	3	
Health 130 .....	2		Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Theology 121, 122 .....	2	2			
Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	13 $\frac{1}{2}$	12 $\frac{1}{2}$

Junior Year			Summer School		
	F	S	Geology 410 (summer field camp) .....		
Geology 311, 312 .....	4	1	4 hours		
Geology 313 .....		3			
Geography 231 .....	3		Senior Year		
History and Philosophy of Religion 480 .....		3	Geology 470, 460 .....	F 3	S 3
Physics 201, 202 (or 211, 213) .....	4	4	Geology 480 .....	3	
Geology 492 .....		1	Language .....	4	4
Chemistry 113 (or Statistics 221) .....	3 or 2		Literature (upper division) .....		2
Religion .....	2	2	Social science elective ..		2
Upper division electives .....	2	2	Religion .....	2	2
			Upper division electives ..	2	2
Total Hours .....	16 or 15	16	Total Hours .....	14	15

The above course outline represents only minimum requirements for the Bachelor of Science degree in geology. For those students who may wish to prepare themselves for graduate study in one of the more specialized sub-sciences of geology, the following courses are recommended in lieu of the electives shown above.

### Additional Courses of Undergraduate Preparation

GEOPHYSICS			GEOCHEMISTRY		
Sophomore Year			Sophomore Year		
Mathematics 213, 334 ..	F 5	S 3	Mathematics 213, 334 ..	F 5	S 3
Junior Year			Junior Year		
Physics 211, 213 .....	F 4	S 4	Physics 211, 213 .....	F 4	S 4
Physics 212, 214 .....	1	1	Physics 212, 214 .....	1	1
Chemistry 113 .....	3		Chemistry 113, 321 .....	3	4
Senior Year			Senior Year		
Physics 341, 342 .....	F 4	S 4	Chemistry 461, 462 .....	F 3	S 3
PALEONTOLOGY			MINERALOGY		
Sophomore Year			Sophomore Year		
Zoology 212, 213 .....	F 4	S 4	Mathematics 213, 334 ..	F 5	S 3
Junior Year			Junior Year		
Zoology 376 .....	F 4	S 4	Physics 211, 213 .....	F 4	S 4
Statistics 221 .....		2	Physics 212, 214 .....	1	1
Senior Year			Senior Year		
Geology 580, 581 .....	4	4	Geology 551 .....	F 5	S 3
			Physics 315 .....		3

### Required Curriculum for Geological Engineering

Freshman Year			Sophomore Year		
	F	S		F	S
Geology 111, 112 .....	4	4	Geology 251, 252 .....	4	4
English 111, 112 .....	3	3	Botany 105 .....	3	
Mathematics 111, 112 ..	5	5	Chemistry 111, 112 .....	4	3
Health 130 .....	2		Mathematics 213, 334 ..	5	3
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Mathematical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Theology 121, 122 .....	2	2	History 170 .....		3
Zoology 105 .....		3	Religion .....	2	2
Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	18 $\frac{1}{2}$	15 $\frac{1}{2}$

Junior Year			Senior Year		
	F	S		F	S
Chemistry 113 .....	3		Civil Engineering		
Civil Engineering			203, 301 .....	2	3
101, 102 .....	2	2	Geology 470, 460 .....	3	3
Geology 311, 312 .....	4	1	Geology 480 .....	3	
Geology 313 .....		3	Language .....	4	4
Geology 491 .....		1	Literature		
Geography 231 .....	3		(upper division) .....		2
History and Philosophy			Social science .....		2
of Religion 480 .....		3	Religion .....	2	2
Physics 211, 213 .....	4	4	Electives .....	4	2
Religion .....	2	2			
Upper division electives		2	Total Hours .....	18	18
Total Hours .....	18	18			
Summer School			Fifth Year		
Geology 410 (summer			Civil Engineering		
field camp) .....	4 hours		211, 212 .....	3	2
			Chemistry 321 .....		4
			Geology 507, 512 .....	2	4
			Geology 551 .....	5	
			Electives .....	6	6
			Total Hours .....	16	16

Twelve semester hours from the following list of electives are to be taken during the fifth year and will apply toward the B.E.S. degree in geological engineering: Geology 520, 530, 535, 540, 545, 574; physical chemistry; differential equations; nuclear physics.

#### Lower Division Courses

- 101. Introduction to Geology.** (2:2:0) F.S.Su. Home Study also. (G-PS m) Staff  
A cultural non-technical course dealing with physical geology. Designed for the non-science student who desires a broad introduction to earth science and a greater appreciation of his surroundings. May be taken with or without Geology 102. Annual two-day field trip through central and southern Utah is sponsored each spring for all Geology 101, 102, and 103 students of the year.
- 102. Introduction to Geology Laboratory.** (1:0:2) F.S.Su. (G-PS m) Staff  
Laboratory course (including a local field trip) in which common rock and ore-forming minerals, common rocks, and a few maps will be studied. For annual field trip, see Geology 101.
- 103. Life of the Past.** (3:3:0) F.S.Su. Home Study also. (G-PS m) Staff  
A cultural non-technical course in historical geology. Designed for the non-science student who desires an understanding of life forms and general historical events of the geologic past. Annual field trip, see Geology 101.
- 111. Physical Geology.** (4:3:2) F.S. (G-PS m) Brimhall  
Minerals, rocks, and other earth materials together with their distribution in the earth and the processes that operate on them. Includes several Saturday field trips early in the semester. Cost: approximately \$10. Not recommended for students who have taken Geology 101 and 102.
- 112. Historical Geology.** (4:3:2) F.S. (G-PS m) Prerequisite: Geology 111. Clark  
The history of the earth and the evolution of its inhabitants. Representative fossils are studied in the laboratory. Required field trips cost approximately \$25.
- 251. Mineralogy.** (4:2:4) F. (m) Phillips  
Crystallography and other important physical properties of minerals, and a detailed study of the ore-forming minerals.

- 252. Petrology.** (4:2:4) S. (m) Prerequisite: Geology 251. Bullock  
A detailed study of the rock forming minerals, and a megascopic study and classification of important igneous, sedimentary, and metamorphic rocks.

### Upper Division Courses

- 306. Geomorphology.** (3:3:0) S. Home Study also. (G-PS m) Bushman  
The earth's landscape features and their origin, dealing with the sculpturing of mountains, hills, plains, and plateaus by erosive processes, and the landform features produced by earth movements and volcanism. Designed especially for non-majors.
- 311. Structural Geology.** (4:3:2) F. Prerequisites: Geology 252 and Mathematics 111. Hintze  
Structural features of the earth's crust and forces which have produced these structures.
- 312. Geological Literature and Scientific Report Writing.** (1:1:0) S. Prerequisite: successful completion of Junior English Proficiency Exam. Brimhall  
Introduction to indexes and various sources of geologic literature. Written exercises on format, style, and expression of various kinds of geologic reports.
- 313. Geologic Methods.** (3:2:2) S. Prerequisite: Geology 311. Bissell  
Practice training in methods of geologic field work and the use of field instruments; office practice in geologic illustration.
- 410. Summer Field Camp.** (4:0:40) Su. only; see summer catalog. Prerequisites: Geology 313, 492. Staff  
A five-week summer field camp in geologic mapping. A one-hour seminar is required during the second semester prior to field camp. Required of all geology and geological engineering majors.
- 460. Principles of Economic Geology.** (3:3:0) S. Prerequisite: Geology 252. Bullock  
Origin, mode of occurrence, classification, and use of more important metallic ores and non-metallic mineral products.
- 470. Stratigraphy and Sedimentation.** (3:2:2) F. Prerequisite: Geology 252. Bushman  
Analytical study of sediments and their origin and study of the principles of stratigraphy.
- 480. Introduction to Paleontology.** (3:2:2) F. Prerequisite: Geology 112. Rigby  
Systematic study of fossil remains of the animal kingdom, and introductory study of structure, distribution, and development of animals in past ages.
- 492. Seminar.** (1:1:0) S. Staff

### Advanced Undergraduate or Graduate Courses

- 501. Rocks and Minerals.** (2:2:0) F.Su. (m) Bullock  
Introductory study of fundamentals of rock and mineral classification and identification. Designed to acquaint the student with the earth's common raw materials, their occurrences, and uses. For non-geology majors.
- 502. Geology for Teachers.** (2:2:0) S.Su. Home Study also. (m) Bushman  
Designed to acquaint the teacher with sources of information, projects, and illustrative materials useful in the classroom.
- 507. Founders and Concepts of Geology.** (2:2:0) F. Bushman  
The historical development of geology and the men who contributed to it; the concepts and philosophy that make geology distinct from other sciences. Analysis of some of the more controversial problems in geology.

- 511. Geomorphology.** (3:3:0) F. (Offered 1962-63 and alternate years) Bushman  
The historical development of geomorphic concepts. The description of land forms and evaluation of the processes that formed them, and the application of this knowledge to paleogeography and economic geology.
- 512. Geology of North America.** (4:3:2) S. Rigby  
A region by region study of the areal geology, physiography, and geologic development of Canada, United States, and Mexico.
- 520. Petroleum Geology.** (4:4:0) S. (Offered 1962-63 and alternate years) Hintze  
Origin, classification, physical properties, distribution, accumulation, and methods of exploration of petroleum.
- 530. Engineering Geology.** (3:3:0) F. (Offered 1962-63 and alternate years) Staff  
Geological principles and phenomena important to an understanding of engineering problems (especially civil engineering), and the relationships which exist between the science of geology and the practical aspects of engineering.
- 535. Ground Water.** (4:4:0) S. (Offered 1962-63 and alternate years) Staff  
Origin, classification, migration, distribution, and production of water found beneath the earth's surface.
- 540. Geophysics.** (3:3:0) F. (Offered 1962-63 and alternate years) Prerequisites: Math 214, Physics 213. Brimhall  
To familiarize the student with the scope of geophysics, give insight into methods used by geophysicists, and to outline some of the most important discoveries of these researches.
- 545. Geochemistry.** (3:3:0) F. (Offered 1963-64 and alternate years) Prerequisites: Math 213, Physics 213. Brimhall  
The kinds and abundances of elements in the earth, their distribution, and the redistribution in various geologic processes.
- 551. Optical Petrography.** (5:3:4) F. Prerequisites: Geology 252, Physics 202 or 213. Phillips  
The behavior of light in crystalline substances and its application to the microscopic identification of minerals as fragments and in thin-section. A consideration of the various schemes of rock classification and the petrographic description of rocks.
- 574. Principles of Stratigraphy.** (2:2:0) F. (Offered 1963-64 and alternate years) Bissell  
Study and interpretation of stratified rocks; principles of their origin, distribution, and correlation.
- 575. Precambrian and Paleozoic Stratigraphy.** (3:3:0) F. (Offered 1962-63 and alternate years) Hintze  
Synthesis of regional stratigraphic relation in North America.
- 576. Mesozoic and Cenozoic Stratigraphy.** (3:3:0) S. (Offered 1962-63 and alternate years) Bushman  
The basins of deposition (throughout the U.S.) of Mesozoic and Cenozoic rocks and key fossils associated with them. Special emphasis on the distribution of these rocks in the state of Utah.
- 580. Invertebrate Paleontology (Protozoans through Brachiopods).** (4:3:2) F. (Offered 1963-64 and alternate years) Clark  
Designed for the upper division and the graduate student who desires a broad background in paleozoology including morphology, paleoecology, evolution, and stratigraphic significance of invertebrates. Basic course for student planning to do graduate work in paleontology or stratigraphy.

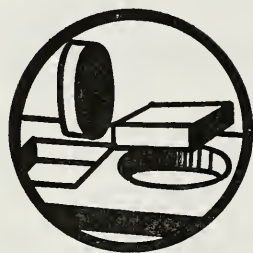
- 581. Invertebrate Paleontology (Mollusks through Hemichordates).** (4:3:2) S. (Offered 1963-64 and alternate years) Prerequisite: Geology 580. Clark  
Continuation of Geology 580.
- 582. Biostratigraphy.** (3:2:2) F. (Offered 1962-63 and alternate years) Prerequisite: Geology 480 or 581. Clark  
Fossils in their stratigraphic setting and principles of paleontologic chronology.
- 591. Seminar.** (1:1:0) F. (Offered 1963-64 and alternate years) Rigby  
Required of all graduate students; and required attendance of all seniors.

### Graduate Courses

- 610. Structural Geology.** (3:3:0) F. (Offered 1963-64 and alternate years) Hintze  
Earth structures and their origin, emphasizing foreign examples.
- 615. Photogeology.** (3:1:4) S. (Offered 1963-64 and alternate years) Hintze  
Techniques useful to practicing geologists; using parallax bar and various instruments applicable to contact print photos.
- 621. Oil Field Development.** (3:3:0) S. (Offered 1963-64 and alternate years) Staff  
Factors important to the production of oil and gas; the economical development of oil and gas fields.
- 641. Geophysical Exploration.** (5:4:2) S. (Offered 1962-63 and alternate years) Brimhall
- 646. Geochemical Techniques and Mineral Prospecting.** (3:2:2) S. (Offered 1963-64 and alternate years) Prerequisite: Geology 545. Brimhall  
A survey of the kinds of techniques employed in geochemical prospecting. About half the course is taken up with a field problem in geochemical prospecting.
- 653. Determinative Mineralogy.** (4:2:4) S. Prerequisite: Geology 551. Phillips  
Instruction in universal stage, polished opaque section, powder x-ray diffraction, and other advanced methods of mineral identification.
- 655. Igneous and Metamorphic Petrology.** (4:3:2) F. (Offered 1962-63 and alternate years) Bullock  
A detailed study of igneous and metamorphic rocks; their origin, classification, and distribution.
- 661. Ore Deposits.** (4:3:2) F. (Offered 1963-64 and alternate years) Prerequisite: Geology 460. Bullock  
A detailed study of the metallic ore deposits, their origin, occurrence, and distribution. Emphasis is placed on the western mining districts.
- 662. Non-Metallic Deposits.** (3:3:0) S. (Offered 1963-64 and alternate years) Phillips  
A detailed study of non-metallic mineral deposits, their mode of occurrence, and their application in the modern industrial world.
- 670. Sedimentation and Sedimentary Tectonics.** (4:3:2) F. Bissell  
Fundamental concepts in the science of sedimentology, and laboratory exercises illustrative of processes of sedimentation followed by review and discussions of tectonic environments which control sedimentation. Field trips are taken into areas illustrative of the subject matter.
- 671. Sedimentary Petrology and Petrography.** (4:3:2) S. Bissell  
Field and laboratory classifications and studies of the sedimentary rocks. Particular emphasis on carbonate petrology and petrography, and application to oil occurrence.

678. **Subsurface Methods.** (4:2:4) S. (Offered 1963-64 and alternate years) Pre-requisite: Geology 551. Bushman  
To acquaint the student with the tools and techniques employed by the sub-surface geologist in describing the lithologic characteristics of sub-surface rock; the use of this information for interpreting sedimentation environments, geologic structures, and stratigraphic correlation.
680. **Micropaleontology.** (3:2:2) F. (Offered 1963-64 and alternate years) Pre-requisite: Geology 480 or 581. Clark  
A systematic study of the geologically important microfossils, including techniques, morphology, and stratigraphic significance. Conodonts, ostracodes, and foraminifera are stressed.
681. **Quantitative Paleontology.** (3:3:0) F. (Offered 1962-63 and alternate years) Prerequisite: Geology 480 or 581. Rigby  
Introduction to biometrics and systematics of fossil organisms and of fossil assemblages.
682. **Vertebrate Paleontology.** (3:3:0) S. (Offered 1962-63 and alternate years) Prerequisite: Geology 480 or 581, or consent of instructor. Clark  
The backboneed animals through time (Agnatha through Mammalia). Morphology, ecology, phylogeny, and stratigraphic significance are stressed.
685. **Paleoecology.** (4:3:2) S. (Offered 1963-64 and alternate years) Prerequisite: Geology 480 or 581. Rigby  
Interpretation of ancient environments and of the adaptation of organisms to these environments as shown by a systematic treatment of each of the major taxonomic groups and by selected analyses from the professional geologic literature.
696. **Reading and Conference in Geology.** (1-4:1-4:0) F.S.Su. Staff
697. **Directed Field Studies.** (Arr.) F.S.Su. Staff  
Supervised field work in any of the fields of specialization in geology for candidates of master's degree.
698. **Research.** (1-4:1-4:0) F.S.Su. Staff
699. **Thesis for Master's Degree.** (1-4:1-4:0) F.S.Su. (m) Staff
797. **Directed Field Studies.** (Arr.) F.S.Su. Staff  
Supervised field work in any of the fields of specialization in geology for candidates of Ph.D. degrees.
799. **Dissertation for Doctor of Philosophy Degree.** (Arr.) F.S.Su. Staff

## Graduate Department of Education



**Professors:** Oakes (chairman, 129 McKay), Burrup, Callahan, D. Christensen, Clarke, Downing, Egbert, Law, Lloyd, Moffitt, Morrill, Nuttall, Reid, Romney, Woolf (emeritus).

**Associate Professors:** Alley, Babcock, Barnett, Bauer, L. Christensen, Crnkovic, Daines, Harris, Krider, Ovard, Parker, Read.

**Assistant Professors:** Flandro, Gagon, Harms, Jensen, McPhie, Moses, Ord, Utley, Wilcox.

The Graduate Department of Education is organized to offer courses for all persons engaged in professional education and service courses to graduate students in other disciplines.

Programs are designed to give special training to school administrators, school business managers, supervisors, curriculum directors, educational psychologists, school psychologists, specialists in counseling and guidance, teachers of special education, master teachers, and other specialists. Such programs are at once intensive and broad in scope. They are designed to give the depth and breadth needed by specialists in education.

**Graduate Degrees.** The department offers graduate degrees at both the master's and doctoral levels. The Master of Arts, the Master of Education, and the Master of Science are offered. In addition, both the Doctor of Education and the Doctor of Philosophy are offered by this department.

A two-year certificate, specialist in educational administration, is planned for school superintendents, assistant superintendents, and elementary and secondary school principals.

### Advanced Undergraduate or Graduate Courses

**514, 515 (614, 615). Analysis of In-Service Problems.** (1-3:1-3:1 ea.) F.S.Su. Staff

**534. Improved Practices in Elementary Teaching.** (3:3:1) F.Su. Staff  
Current concepts in elementary education, with observation and analysis of some of the best teaching practices. Designed to meet the needs of persons seeking a refresher course, and for prospective administrative personnel in the elementary schools.

**547. The Place and Development of Skills in Various Approaches to Reading.** (3:3:0) F.Su. Staff  
Detailed consideration of the reading skills developed in kindergarten through grade twelve with emphasis on word analysis; the development of these skills in the various approaches to reading.

**550. Introduction to Guidance Services.** (2:2:0) F.S.Su. Downing, Jensen, Moses  
Principles and practices of pupil personnel services in public schools. Designed for prospective teachers of both elementary and secondary levels. Required but may not be counted as part of the 30 hours for the master's degree by students majoring in this department.

- 552 (540). **Statistical Methods.** (2:2:0) F.Su. Bauer, Egbert, Nuttall  
Consideration is given to measures of central tendency, variability, and linear correlation. Elementary concepts of probability and inference are discussed. Required but may not be counted as part of the 30 hours for the master's degree by students majoring in this department.
- 554 (541). **Advanced Statistics.** (2:2:0) S.Su. Prerequisite: Education 540.  
Egbert, Nuttall
- 560 (410). **Tests and Measurements for Classroom Teachers.** (2:2:0) S.Su.  
Harris, Harrison  
Emphasizes techniques for construction and use of classroom tests as measuring and teaching devices; consideration also given to standardized tests and evaluation techniques other than testing. Fulfills California certification requirements for class in measurements.
561. **Standard English Braille.** (2:2:0) Arr. Staff
562. **Advanced Standard English Braille.** (2:2:0) Arr. Prerequisite: Education 561. Staff
563. **Problems in the Education of the Visually Handicapped.** (3:3:0) Arr. Pre-  
requisite: consent of instructor. Staff
- 564 (526). **Arts and Crafts for the Handicapped.** (2:2:1) F.Su. Staff  
Arts, crafts, and other media as they may be adapted to meet the needs of individuals with disabilities.
- 566 (666). **Problems in the Education of Orthopedically Handicapped Children.**  
(3:3:0) F.Su. Prerequisite: Education 560. Krider, Wilson
- 567 (667). **Problems in the Education of Mentally Retarded Children.** (3:3:0)  
S.Su. Prerequisite: Education 560. Krider, Wilson
- 568 (668). **Observation and Participation in Special Education.** (2:1:3) F.S.Su.  
Prerequisite: consent of instructor. Wilson

#### Graduate Courses

- 601 (604). **Comparative Current Educational Philosophy.** (3:3:0) F.S.Su. (m)  
Alley
- 603 (605). **Educational Classics and Contemporary Issues.** (3:3:0) S. (m)  
Alley, Lloyd
- 606 (621). **History of Education in Europe and America.** (4:4:0) F.Su. (m)  
Hardy
- 607 (631). **Education in a World Setting.** (2:2:0) S. Lloyd, Romney
- 608 (642). **Education in the Social Order.** (2:2:0) S.Su. (m) Ovard
- 610 (605). **Development of Instructional Materials (Audio-Visual Aids).** (2:2:1)  
F.Su. Prerequisite: Education 406 or equivalent.  
An advanced course designed to follow Education 406. Principles of learning and the unique contributions of instructional materials to the curriculum. Of primary concern is the selection, integration, sources, and administration of instructional materials. Construction and use of specialized materials.
- 611 (608). **Radio, Television, and Motion Picture Photography in Education.**  
(2:2:1) Su. Staff  
Utilization in the classroom and in public relations. Current programs, production techniques, recording of programs, and the role of mass media in learning. The development and potential of educational television.
612. **Supervision of Student Teachers.** (2:2:0) Su. Staff  
For those desiring a well-rounded view of the student teaching program with emphasis on the specific role of the cooperating teacher.

- 613 (673). Teaching Speech in Secondary Schools.** (2:2:0) Su. Staff  
**616. Analysis of In-Service Problems.** (1-3:1-3:1 ea.) F.S.Su. Staff  
**619 (663). Directing Out-of-Class Activities in Secondary Schools.** (2:2:0) Su. Staff  
 Examination of successful practices in scheduling and directing out-of-class activities. The effect of current scientific curriculum emphasis on out-of-class activities is explored.
- 622. Advanced Study in Early Childhood Education.** (2:2:0) F.Su. Staff  
 Theory and analysis of current practice in schools as related to the significance and problems of early childhood education.
- 623. Science in the Elementary School.** (2:2:0) S.Su. Staff  
 Designed to give experienced teachers insight into the teaching of elementary science. Includes concentration in unit instruction and methods of presenting science concepts to children.
- 624. Advanced Arts and Crafts for Elementary Teachers.** (2:2:1) F.Su. Pre-requisite: consent of instructor. Staff  
 Exploring ideas and materials for the instruction of elementary school children. Attention is given to the specific needs of each course member.
- 625 (635). Social Studies in the Elementary School.** (2:2:0) S.Su. Staff  
 The scope and sequence of the social studies program, its objectives in developing democratic citizenship, and the methods employed in accomplishing this aim.
- 626 (646). Development of Instructional Methods in the Elementary School.** (2:2:0) S.Su. Staff  
 Not open to students who have taken Education 676.  
 Problems, principles, and issues related to method; assessment of readiness; problems of organizing pupils for instruction, guiding, and pacing; selection of materials; and evaluation.
- 627 (667). Teaching Reading in Secondary Schools.** (2:2:0) F.Su. Staff  
 Methods of teaching reading in the secondary school and their adaptation. Role of the subject-matter specialist in the reading program.
- 629 (659). Secondary School Curriculum Workshop.** (2:2:0) Su. Staff  
 Designed for an analysis of in-service curriculum problems.
- 630 (670). Teaching Mathematics and Science in Secondary Schools.** (2:2:0) Su. Staff  
 Designed especially for in-service teachers. Emphasis given to the newer methods, materials, and trends in science and mathematics instruction. Lesson plans developed.
- 631. Curriculum Development in the Elementary School.** (2:2:0) F.Su. Staff  
 Not open to students who have taken Education 656.  
 Principles and procedures for organizing the instructional program; patterns of curriculum organization; and techniques for change, evaluation, and stagilization of curriculum.
- 632 (642). Reading in the Elementary School.** (2:2:0) F.Su. Staff  
 An overview of the reading program; comparison of different approaches to the teaching of reading; and word recognition skills studied in greater detail. Opportunities are provided students to work on their own problems in teaching reading.
- 633 (641). Language Arts in the Elementary School.** (2:2:0) F.Su. Staff  
 Best practices in modern methods of instruction in listening, speaking, reading, and writing with their related skills.
- 634 (644). Arithmetic in the Elementary School.** (2:2:0) S.Su. Staff  
 Concepts in arithmetic, and various activities which will help students

acquire correct arithmetical concepts. Special attention on the contributions of research in teaching arithmetic.

- 635 (672). Teaching Social Studies in Secondary Schools.** (2:2:0) S.Su. Staff  
Designed to broaden the understanding of curriculum and instruction in secondary school social studies. Relates methods and techniques to the objectives of the social studies.
- 636 (656). Curriculum Development in the Secondary School.** (2:2:0) S.Su. Staff  
Not open to students who have taken Education 631.  
Analysis of secondary curriculum development in terms of psychological and philosophical principles. Curriculum issues, trends, and current practices are examined.
- 639 (676). Development of Instructional Methods in the Secondary School.** (2:2:0) F.Su. Staff  
Not open to students who have taken Education 646.  
A general, intensive analysis of the instructional methods used at the secondary level utilizing principles developed from psychology, sociology, and philosophy.
- 640 (682). Curriculum of the Junior College.** (3:3:0) F.S.Su. Staff  
Analysis of junior and community college curriculum practices throughout the United States. Relationship of philosophy to curriculum emphasis. Examination of issues, trends, and current practices.
- 642 (684). Methods of Higher Education Instruction.** (3:3:1) F.S. Staff  
Identification of teacher and pupil activities required for conceptual learning at the college level. Appreciation of the college teacher's responsibilities and role as a member of a college staff. Insight into the backgrounds, abilities, interests, and goals of college students and what these mean for instruction. Familiarity with newer tools, teaching materials, and instructional practices.
- 644 (685). Directed Teaching in Higher Education.** (2-4:1-2:5-10) F.S.Su. Pre-requisite: Education 684. Staff  
Designed to help students become accomplished and skilled teachers of college classes; to participate effectively as a member of a college staff; and to prepare for and complete the steps necessary to be placed into a college position.
- 645 (611). Guidance Testing and Diagnosis.** (3:3:0) F.Su. Prerequisites: Education 540, 550. Staff  
Jensen, Moses
- 646 (620). Counseling Theory and Practice.** (3:3:0) F.S.Su. Prerequisites: Education 540, 550. Staff  
Downing, Moses, Parker
- 647 (622). Group Techniques for Counselors.** (2:2:0) S.Su. Prerequisites: Education 550 and 620. Staff  
Bauer, Downing, Jensen
- 648 (624). Industrial Counseling.** (2:2:0) Arr. Prerequisites: Education 550, 620, 651. Staff
- 649 (625). Advanced Counseling Theory.** (2:2:0) S.Su. Prerequisites: Education 620, Psychology 550. Staff  
Kelley, Parker, Reid
- 650. Guidance Workshop.** (2:2:0) Arr. Prerequisite: Education 550. Staff
- 651. Informational Services in Guidance.** (3:3:0) S.Su. Prerequisite: Education 550. Staff  
Downing
- 652 (653). Administration of Guidance Services.** (2:2:0) S.Su. Prerequisite: Education 550. Staff  
Downing
- 653 (656). Student Personnel Services in Higher Education.** (2:2:0) S. Pre-requisite: Education 550. Staff  
Lloyd

- 656 (601). Advanced Educational Psychology. (2:2:0) S.Su. Prerequisite: Education 403. Bauer, Harris
- 657 (606). Behavior Problems in the Schools. (2:2:0) F.S.Su. Prerequisites: Education 403, 550. Bauer, Downing
- 658 (610). Educational Tests and Measurements. (2:2:0) F.Su. Prerequisite: Education 540. Bauer, Harris, Moses
- 659 (502). Educational and Psychological Principles of Programmed Learning. (3:3:0) S. Prerequisite: Psychology 560 or Education 656. Bauer, Egbert
- 660 (641). Educational Research and Thesis Writing. (2:2:0) F.S.Su. Prerequisite: Education 540. Egbert, Nuttall
662. Workshop in the Study of the Mentally Retarded. (4:4:0) Su. only. Krider, Wilson
663. Workshop in the Study of the Visually Handicapped. (4:4:0) Su. only. Staff
- 664 (661). Workshop in the Study of the Gifted Child. (4:4:0) Su. only Krider, Wilson
- 666 (664). Special Education Services in Public Schools. (2:2:0) Su. only Staff
- 667 (612). Diagnosis of Achievement Difficulties. (2:2:0) F.Su. Prerequisite: Education 610 or 611. Bauer, Harris, Krider
- 668 (630). Corrective Teaching Techniques. (2:2:0) S.Su. Prerequisite: Education 612 or consent of instructor. Krider
- 670 (675). Internship in School Psychology. (2-4:1-2:4-8) S. Prerequisite: consent of instructor. Moses
- 671 (670). Practicum in Testing and Counseling. (5:2:10) F.S.Su. Prerequisite: consent of instructor. Downing, Jensen, Parker
- 672 (676, 677). Practicum in Special Education. (2-4:1-2:4-8) S.Su. Prerequisite: consent of instructor. Wilson
- 673 (678, 679). Practicum in Remedial Reading. (2-4:1-2:4-8) S.Su. Prerequisite: consent of instructor. Krider
- 675 (600). Organization and Administration of Public Schools. (3:3:0) F.S.Su. (m) Morrill, Oakes
- 677 (610). Public School Finance. (2:2:0) F.S.Su. (m) Burrup, Nuttall
- 678 (631). The Elementary School Principalship. (2:2:0) F.S.Su. (m) Harms, Morrill
- 679 (644). Work of the Secondary School Principal. (2:2:0) F.S.Su. (m) Burrup
680. Field Work in Educational Administration. (3:1:4) F.S.Su. (m) Staff
- 682 (619). Personnel Problems of the School Staff. (2:2:0) S.S. Su. (m) Barnett
- 683 (651). Administration of Auxiliary Services. (2:2:0) F.Su. (m) Barnett
- 684 (654). Administration of Pupil Personnel. (2:2:0) S.Su. (m) Ovard
- 685 (665). Supervision of Education. (2:2:0) F.S.Su. (m) Harms, Moffitt
- 687 (673). School Law. (2:2:0) F.S.Su. (m) Barnett, Burrup, Oakes
- 690, 691. Seminar. (2:2:0 ea.) F.S.Su. (m) Staff
- 693, 694. Independent Readings. (1-2:3-6:0 ea.) F.S.Su. (m) Staff

- 696, 697. Independent Research. (1-2:3-6:0 ea.) F.S.Su. (m) Staff
698. Field Project. (2-4:Arr.:Arr.) F.S.Su. Staff
699. Thesis for Master's Degree. (2-4:Arr.:Arr.) F.S.Su. Staff
- 706 (646). Objectives and Programs of Continuing Education. (2:2:0) Su. Alley
- 709 (662). Philosophy of Program Planning. (2:2:0) S. Alley, Oakes
- 730 (662). Philosophy of Program Planning. (2:2:0) S. Alley, Oakes
- 741 (771). Practicum in Counseling. (3:1:8) S.Su. Prerequisite: consent of instructor. Parker
- 760 (710). Problems of Elementary School Administration. (2:2:0) S.Su. (m) Harms
- 762 (712). The Junior High School. (2:2:0) S.Su. (m) Ovard
- 763 (723). The Senior High School. (2:2:0) F.Su. (m) Ovard
- 765 (730). Business Administration of the Public Schools. (2:2:0) S.Su. (m) Burrup
- 767 (737). Research and Survey Procedures in Educational Administration. (2:2:0) S.Su. (m) Morrill, Oakes
- 768 (738). Leadership Functions in Educational Administration. (3:3:0) F.S.Su. (m) Morrill
- 770 (741). Organization and Administration of Continuing Education. (3:3:0) S.Su. (m) Ovard
- 771 (748). College and University Organization and Administration. (2:2:0) F. Su. (m) Oakes
- 772 (749). Evaluation and Accreditation of Educational Institutions. (2:2:0) F. Su. (m) Staff
- 773 (750). Public School Building Programs. (2:2:0) S.Su. (m) Morrill
775. Educational Administrative Theory. (3:3:0) F.S.Su. (m) Oakes
786. Problems of Taxation and Financial Support of Public Institutions. (2:2:0) F.Su. (m) Burrup, Nuttall
790. Seminar: Educational Measurement. (2:2:0) S.Su. Prerequisite: consent of instructor. Harris, Jensen
791. Seminar: Learning Theory Applied to Education. (2:2:0) S.Su. Prerequisite: Psychology 560. Bauer, Egbert
798. Field Project for Ed.D. Degree. (Arr.) F.S.Su. Staff
799. Dissertation for Ph.D. Degree. (Arr.) F.S.Su. Staff

These courses also count in Education:

- Art 668. Teaching Art in Secondary Schools. (1-3:Arr.:Arr.)
- Journalism 674. Teaching Methods in Journalism. (2:2:0)
- Library Science 571. Bibliography of Sciences. (2:2:0)
- Library Science 572. Bibliography of the Humanities. (2:2:0)
- Library Science 573. Bibliography of the Social Sciences. (2:2:0)
- Library Science 650. Current Problems in the Technical Services. (2:2:0)
- Music 615. Vocal Methods, Materials, and Resources. (2:2:0)
- Music 616. Instrumental Methods, Materials, and Resources. (2:2:0)

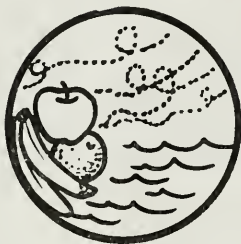
## Health and Safety Education

**Professors:** Hart, Hartvigsen, Nicholes.

**Associate  
Professors:** Watters (chairman, 220 SFH),  
Geddes.

**Assistant  
Professors:** Duerden\*, Robison, Tuckett.

**Instructors:** Kimball, Shaw.



**Health Education Major.** Students majoring in health education will take the following courses: Health 121, 325, 381, 460, 521, 530 or 552; also the following courses from other departments or their equivalent: Foods and Nutrition 115, Zoology 261, Psychology 340, and at least six hours from other health courses or elective courses which also count in health education. The student's program is to be established through consultation with an adviser from the department.

**Health Education Minor.** Students may minor in health education by completing the following courses: Health 121, 381, 521, and at least eight hours selected from the following: Foods and Nutrition 115, Bacteriology 311, Psychology 340, Health 325, 530, 552, 560, 561, and Sociology 370. In addition, a student may select two hours from the elective courses that also count in health education. The student's program is to be established through consultation with an adviser from the department.

**Driver and Safety Education Minor.** Students may minor in driver and safety education and qualify for state certification by completing the following: Health 121, 325, 444, 445, and six hours selected in consultation with the chairman of the Health and Safety Education Department.

**Composite Major.** See courses required for teaching majors, minors, and composite majors listed under the College of Education.

### Lower Division Courses

- 10. Beginning Drivers' Laboratory.** (0:0:3) S.Su. Shaw  
Non-credit course. Driver education for beginning drivers. Used as a laboratory in conjunction with Health Education 445. No driving experience required.
- 121. First Aid.** (2:2:0) F.S.Su. (m) Staff  
Principles and practices in emergency care and first aid procedures for injuries. American Red Cross certificate given upon successful completion of course.
- 130. Personal Health.** (2:2:0) F.S.Su. Home Study also. Staff  
Intended to develop adequate knowledge of health and illness and desirable health attitudes and practices. Required of all freshmen students. May be taken either semester during freshman year.

**These courses also count in health education:**

**Bacteriology 121. General Bacteriology.** (3:2:3)

**Chemistry 101. Introductory Inorganic Chemistry.** (5-4:5:4-2)

or

**Chemistry 105. General College Chemistry.** (4:4:2)

or

**Chemistry 111. Principles of Chemistry.** (4:5:0)

**Food and Nutrition 115. Essentials of Nutrition.** (2:2:0)

**Psychology 185. Physiological Psychology.** (2:2:0)

**Zoology 261. Human Anatomy and Physiology.** (4:3:2)

### Upper Division Courses

**325. Safety Education.** (2:2:0) F.S.Su. Home Study also. (m) Shaw, Watters  
Comprehensive course covering all major areas of general safety including school, playground, home, farm, industrial, and traffic safety.

**361. School Health for Elementary Teachers.** (2:2:0) F.S.Su. Home Study also. Staff  
Fundamental principles of the school health program and their application in elementary teaching. Designed for those preparing to teach in the elementary school.

**362. School Health for Secondary Teachers.** (2:2:0) F.S.Su. Home Study also. Staff  
Fundamental principles of the school health program and their application in secondary teaching. Designed for those preparing to teach in secondary school.

**381. Program Planning in Secondary Health Education.** (2:2:0) F.S. (m) Geddes, Watters  
Emphasis on the role of the health specialist in integrated and concentrated programs; a study of functions, program planning, and resource materials related to school health education.

**444. Driver Education Planning.** (2:2:0) S.Su. (m) Recommended: Health 325. Shaw  
Organization, administration, and supervision of high school driver education programs.

**445. Driver and Traffic Education.** (4:2:4) S.Su. (m) Recommended: Health 325, 444. Shaw  
Knowledge, attitudes, and skills related to driving. Behind-the-wheel instruction and practice instruction, fitness of drivers, insurance and liability, cost and care of car, traffic codes, nature's laws, highways, city, freeway, and adverse conditions of driving. Contributions to and the problems of the automobile in modern society.

**451. School Health and Community Relations.** (1:1:0) S. Recommended: Health 361 or 362. Duerden  
Designed to increase understanding of the health relationships between the school and the community, including principles of community cooperation, disease prevention and control, and general methods of health promotion.

These courses also count in health education:

**Bacteriology 311. Sanitation and Public Health.** (2:2:0)

**Bacteriology 331. Microbiology.** (4:2:6)

**Psychology 340. Mental Hygiene.** (2:2:0)

**Psychology 445. Exceptional Children.** (2:2:0)

**Sociology 370. Social Relations in Medical Health Organizations.** (2:2:0)

**Sociology 449. Community Organization, Action, and Planning.** (2:2:0)

**Zoology 365. Animal Physiology.** (4:2:4)

**Advanced Undergraduate or Graduate Courses**

- 501. Health Education Workshop.** (1-2:Arr.:0) F.S.Su. Staff  
Intended primarily for extension credit and/or summer school. Involves a presentation of health education problems followed by discussions. Conducted on a workshop basis.
- 521. Evaluation and Selection of School Health Material.** (2:2:0) F.S. (m) Geddes, Duerden  
Pamphlets, brochures, films, textbooks, and other school health resource materials are evaluated and selected for present and future use.
- 530. First Aid Instructorship.** (2:2:1) F. (m) Watters  
Designed to qualify instructors in Red Cross first aid, so that they may conduct classes to qualify individuals for standard and advanced Red Cross cards.
- 551. Field Work in Community Health.** (2:Arr.:Arr.) S.Su. Recommended: Health 451. Duerden  
Designed to broaden understanding of community health agencies, their roles, programs, and relationships. This is accomplished by field introductions to the various official and voluntary health agencies, followed by the selection of agencies in which to do field work during the semester.
- 552. School Health Services.** (2:2:0) S. (m) Staff  
Considers desirable school health services, functions and relationships to public education and education law. Coordinates school health services with community programs.
- 560. Stimulants and Depressants.** (2:2:0) F. (m) Prerequisite: course in general chemistry, Physical Education 334, or equivalent. Nicholes  
The physiology and biological chemistry of stimulants and depressants.
- 561. Health of the Body Systems.** (3:3:0) S. (m) Recommended: Health 560 or equivalent. Nicholes  
Advanced course in personal health dealing with the major factors in health and disease as they involve the several body systems.
- 479. Secondary Student Teaching.** (8:8:0) F.S. Staff

These courses also count in health education:

- Education 540. Statistical Methods. (2:2:0)
- Education 550. Introduction to Guidance Services. (2:2:0)
- H.D.F.R. 510. Advanced Child Development. (3:3:0)
- H.D.F.R. 580. Introduction to Marriage and Family Counseling. (2:2:0)
- Psychology 540. Abnormal Psychology. (3:3:2)
- Psychology 585. Advanced Physiological Psychology. (3:3:0)
- Speech 545. Public School Audiometry. (2:2:2)

**Graduate Courses**

- 693. Research in Health Science.** (2:1:2) F.S. Staff  
Independent and/or directed research in problems associated with the health sciences. This course gives credit to those graduate students involved in directed or independent research from grant-in-aid, fellowship, or contract grant support.
- 694. Seminar in Readings.** (2:2:0) S.Su. Staff
- 696. Seminar in Problems.** (1:1:0) F.Su. Staff

698. Field Project. (1-4:Arr.:Arr.) S. Staff
699. Thesis for Master's Degree. (1-4:2-5:0) F.Su. Staff

These courses also count in health education:

- Education 662. Philosophy of Program Planning. (2:2:0)
- Education 610. Educational Tests and Measurements. (2:2:0)
- Education 620. Counseling Theory and Practice. (3:3:0)
- Physical Education 660. Measurement and Evaluation of Physical and Health Education. (3:3:0)
- Physical Education 691. Seminar in Administration and Public Relations. (3:3:0)
- Physical Education 692. Research Methods in Health, Physical Education, and Recreation. (3:3:0)
- Psychology 655. Psychosomatic Problems. (2:2:0)
- Zoology 662. Advanced General Physiology. (2:1:2)

## History



**Professors:** Campbell (chairman, 336 M), Hafen, Poll, Swensen.

**Associate Professor:** Jensen.

**Assistant Professors:** Addy, Hyer.

**Instructors:** Cardon, Perkins.

### Requirements for a Major

A history major requires the completion of 30 hours of work in this field. Courses required are History 110, 111, 120, and 121, normally taken in the freshman and sophomore years; History 388 and Library Science 370, junior year; History 490, senior year. Majors who seek certification in secondary education are also required to take History 366. The remaining elective hours should be selected in consultation with the departmental adviser. Not more than 12 hours of lower division work in history may be applied toward the major.

A comprehensive examination is given to all majors in the final semester of the senior year.

A student deciding to major in history should immediately consult the chairman of the department, who will assist in the selection of a minor field.

The requirements for a teaching major in history and for the composite major in social sciences which includes history are found in the College of Education section.

### Suggestions for a Minor

A history minor requires 14 hours of course work **not** including History 170. At least 6 hours must be chosen from History 110, 111, 120, and 121.

For the requirements for a teaching minor in history, see College of Education.

### American History and Government Requirement

For details concerning the American history and government requirements, see "Requirements for Graduation" in the Student Academic Services section of this catalog.

### Lower Division Courses

- 110. World Civilization I.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Staff  
Beginnings of major world civilizations and their development to approximately 1500 A.D., with emphasis on Europe.
- 111. World Civilization II.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Staff  
Development of major world civilization since 1500 A.D., with emphasis on Europe.

- 120. The United States to 1865.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Staff  
 Discovery and colonization, the American Revolution, establishment of the Constitution, foreign affairs, westward expansion, sectionalism, and the Civil War.
- 121. The United States since 1865.** (3:3:0) F.S.Su. Home Study also. (G-HA m) Staff  
 Civil War and reconstruction, industrialization and urbanization, American imperialism, progressivism, world wars, New Deal, and current problems.
- 170. The American Heritage.** (3:3:0) F.S.Su. Staff  
 Growth of the United States under the constitution, with emphasis on political ideas and institutions and the adaptation of the governmental system to America's role as an industrial and world power.

This course also counts in history:

**Economics 274. Economic History of the United States.** (3:3:0)

### Upper Division Courses

Upper division and graduate classes to be offered in the summer will be announced in the summer school catalog.

Courses in other departments which carry credit in history are listed at the end of each division of course offerings.

- 300. Early Oriental History.** (2:2:0) F. (G-HA m) Nibley  
 Ancient Egypt, Babylonia, Assyria, Arabia, Persia and Palestine.
- 304. Greek History and Civilization.** (3:3:0) F. (Offered 1963-64 and alternate years) (G-HA m) Swensen
- 307. Roman History and Civilization.** (3:3:0) S. (Offered 1962-63 and alternate years) (G-HA m) Swensen
- 311. History of the Middle Ages.** (3:3:0) S. (G-HA m) Swensen
- 312. Renaissance and Reformation.** (3:3:0) F.S. Home Study also. (G-HA m) Jensen, Swensen
- 316. Western Civilization I.** (1-2:Arr.:Arr.) Su. (m) Staff  
 Limited to participants in the B.Y.U. Travel-Study Program.
- 317. Western Civilization II.** (1-2:Arr.:Arr.) Su. (m) Staff  
 Limited to participants in the B.Y.U. Travel-Study Program.
- 323. Europe in the Twentieth Century.** (2:2:0) S. Home Study also. (Offered 1963-64 and alternate years) (G-HA m) Cardon, Jensen
- 330. Russia Before 1900.** (2:2:0) F. (m) Mabey, Poll
- 331. Russia Since 1900.** (2:2:0) S. Home Study also. (m) Mabey, Poll
- 332. France Since 1610.** (3:3:0) S. Home Study also. (m) Jensen
- 333. Modern Germany.** (2:2:0) F. (m) Jensen
- 334. Spain.** (2:2:0) F. (Offered 1962-63 and alternate years) (G-HA m) Addy
- 335. England.** (3:3:0) F. (G-HA m) Cardon
- 336x. History of England to 1714.** (2) Home Study only. (m) Jensen  
 Not open to students who have taken History 335.
- 337x. History of England since 1714.** (2) Home Study only. (m) Jensen  
 Not open to students who have taken History 335.

340. **Asia.** (3:3:0) F. (G-HA m) Hyer, Palmer  
Emphasis on China, Japan and India.
343. **Formative Period of Chinese Civilization.** (3:3:0) F. (m) Dyer  
Development of China to recent times, with emphasis on social and cultural factors.
344. **Modern China.** (3:3:0) S. (m) Hyer
346. **Japan.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Hyer
347. **India.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Hyer
351. **History of Latin America I.** (3:3:0) F. Home Study also. (m) Addy  
Colonial period. Geography, pre-Columbian civilization, conquest, and institutional development from 1492 to 1800.
352. **History of Latin America II.** (3:3:0) S. Home Study also. (G-HA m) Addy  
National period. The wars of independence, evolution of modern republics, inter-American relations, and institutional development from 1800 to the present.
353. **Mexico.** (2:2:0) S. (Offered 1963-64 and alternate years) Home Study also. (m) Addy
360. **The American Frontier.** (2:2:0) F.S. (m) Campbell, Hafen, Larson  
Highlights and significance of the westward movement in American history.
364. **The Indian in American History.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Hafen
365. **California.** (2:2:0) F. (Offered 1963-64 and alternate years) Home Study also. (m) Campbell
366. **Utah.** (2:2:0) F.S. Home Study also. (m) Staff  
Emphasis on the Utah territorial period and the Mormon contribution. Not open to freshman or sophomore residents.
370. **Colonial America.** (2:2:0) F. Home Study also. (m) Perkins
373. **American Intellectual History.** (2:2:0) S. (G-HA m) Bushman
379. **U.S. in 20th Century.** (3:3:0) S. (Offered 1963-64 and alternate years) (m) Perkins
388. **Historiography.** (2:2:0) F.S. (m) Swensen, Tyler  
Fundamental problems and types of historical analysis and interpretation, philosophies of history, and work of outstanding historians.
490. **Senior Seminar.** (2:2:0) F.S. Prerequisite: Library Science 370 or equivalent. Staff  
Required of all history majors in the senior year.
498. **Directed Readings.** (1-2:0:Arr.) F.S.Su. Staff

These courses also count in history:

- Library Science 370. **Historical Bibliography and Methods of Research.** (2:2:0)  
Political Science 306. **History of American Political Thought.** (2:2:0)  
Political Science 322. **Contemporary Problems.** (2:2:0)

#### Advanced Undergraduate or Graduate Courses

In the Department of History, courses in the 500 series provide systematic coverage of rather broad areas of subject matter through text and library readings, lectures, reports, and class discussions. Students who have not completed the

relevant courses from among History 110, 111, 120 and 121 should obtain permission of the instructor before enrolling in any of these courses.

512. **Medieval Thought and Culture.** (3:3:0) S. (Offered 1962-63 and alternate years) (m) Swensen
520. **Eighteenth Century Europe.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Addy
522. **Nineteenth Century Europe.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Addy
525. **European Diplomatic History since 1815.** (2:2:0) F. (Offered 1962-63 and alternate years) (m) Jensen
548. **Culture of Asia.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Hyer
562. **American Westward Movement to 1825.** (3:3:0) F. (m) Hafen
563. **American Westward Movement after 1825.** (3:3:0) S. (Offered 1963-64 and alternate years) (m) Hafen
572. **American Revolution and the Confederation.** (2:2:0) F. (Offered 1963-64 and alternate years) (m) Backman
575. **The New Nation, 1787-1815.** (2:2:0) (Offered 1963-64 and alternate years) (m) Campbell
577. **Civil War and Reconstruction.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Poll
578. **American Industrial Revolution.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Poll
585. **Historical Geography of United States.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Staff

These courses also count in history:

- Political Science 557. **Government and History of Canada.** (3:3:0)
- Political Science 571. **American Foreign Policy.** (3:3:0)
- Political Science 595. **American Constitutional Development.** (2:2:0)

### Graduate Courses

In the Department of History, courses in the 600 series, excepting seminars, develop selected problems within the general areas of the course titles through extensive library reading, reports, and class discussions. Seminars require each participant to produce a substantial research paper. Seniors who have completed all of the specifically required courses for the undergraduate major may enroll in these courses with the permission of the instructor.

606. **Greek Thought.** (2:2:0) F. (Offered 1963-64 and alternate years) Swensen
618. **Renaissance and Reformation.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Jensen
621. **Modern Europe.** (2:2:0) S. (Offered 1962-63 and alternate years) Jensen
640. **The Far East.** (2:2:0) F. (Offered 1962-63 and alternate years) Hyer
650. **Latin America.** (2:2:0) S. (Offered 1963-64 and alternate years) Addy
656. **Southwestern United States.** (2:2:0) S. (Offered 1963-64 and alternate years) Hafen

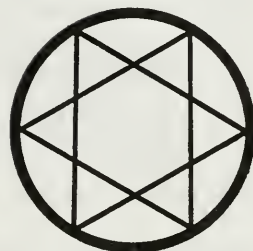
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| 667. Northwestern United States. (2:2:0) F. (Offered 1962-63 and alternate years)        | Hafen   |
| 670. Colonial America. (2:2:0) F. (Offered 1962-63 and alternate years)                  | Bushman |
| 679. Contemporary United State History. (2:2:0) S. (Offered 1963-64 and alternate years) | Poll    |
| 694. Seminar in European History. (2:2:0) F.S.   | Staff   |
| 695. Seminar in Western American History. (2:2:0) F.S.                                   | Staff   |
| 696. Seminar in United States History. (2:2:0) F.S.                                      | Staff   |
| 697. Seminar in Utah History. (2:2:0) F.S.   | Staff   |
| 698. Special Readings in History. (1-2:0:Arr.) F.S.Su.                                   | Staff   |
| 699. Thesis for Master's Degree. (1-4:0:Arr.) F.S.Su.                                    | Staff   |
| 799. Dissertation for Doctor's Degree. (1-4:0:Arr.) F.S.Su.                              | Staff   |

**Professors:** Burton, Nibley, Rich, Yarn.

**Associate Professors:** Madsen (chairman, 114 S), Andrus, Barron, Clark, Larson, Riddle.

**Assistant Professors:** Backman, Barrett, Bushman, Horsley, Palmer, Patch, Shaw.

## History and Philosophy of Religion



Courses in the Department of History and Philosophy of Religion are offered to help students meet the religion requirements of the University. An undergraduate major is **not** offered in this department. A graduate major or minor is offered at both the master's level and doctoral level. (See section on the College of Religious Instruction.)

### Requirements for a Philosophy Minor

A philosophy minor requires a minimum of 14 hours of course work which must include **all** of the following courses: History and Philosophy of Religion 380, 381, 470, 471.

### HISTORY OF RELIGION

#### Lower Division Courses

240. **Church History.** (1-2:Arr.:Arr.) Su. Staff  
 Limited to participants in the B.Y.U. Travel-Study Program. The growth of the Church from the New York period to the westward migration.
- 241, 242. **Latter-day Saint History.** (2:2:0 ea.) F.S.Su. (G-R) Staff  
 A chronological study of main events in Church history from 1805 to the present.

#### Upper Division Courses

- 441, 442. **History and Doctrine of the Church.** (3:3:0 ea.) F.S.Su. Home Study  
 also. (G-R) Andrus, Backman, Barrett, Barron, Bushman  
 Horsley, Larson, Rich  
 A topical examination of the history of the Church. Interpretive writings include Roberts' **Comprehensive History of the Church**. Students must have instructor's permission to enroll in these courses for credit if credit has been allowed for 241 and 242.
451. **Christian History through the 15th Century.** (2:2:0) F.S.Su. (G-R)  
 Horsley
452. **Christian History after the 15th Century.** (2:2:0) F.S.Su. (G-R) Horsley
453. **World Religions.** (2:2:0) F.S.Su. (G-R) Staff
454. **Historical Setting of Mormonism.** (2:2:0) F.S.Su. (G-R) Backman

**Advanced Undergraduate or Graduate Courses**

541. **Documents of L.D.S. Church History.** (3:3:0) F.S.Su. Andrus, Backman, Larson, Clark  
Systematic analysis of original materials, including Volumes 1, 2, 3 of the **Documentary History of the Church.**
542. **Documents of L.D.S. Church History.** (3:3:0) F.S.Su. Andrus, Backman, Larson, Rich  
Systematic analysis of original materials, including Volumes 4, 5, 6, 7 of the **Documentary History of the Church.**
545. **Great Figures of L.D.S. Church History.** (2:2:0) F.S.Su. Barrett  
Biographical study of significant L.D.S. Church personalities of the first half century of the restoration.
546. **Social, Economic, and Political Thought of Joseph Smith.** (2:2:0) F.S. Andrus
551. **The Primitive Church.** (2:2:0) F. Nibley
552. **Christianity in the Second and Third Centuries.** (2:2:0) F.S. Nibley
553. **Great Figures in Christian History.** (2:2:0) F.S.Su. Horsley  
Biographical study of significant Christian personalities from Paul to Joseph Smith and their contributions to Christianity.
554. **Martin Luther, Forerunner of the Restoration.** (2:2:0) F.S.Su. Horsley  
Luther's life, theology, and influence upon Protest-Christanity, with special emphasis on the significance of Luther for Mormonism.
555. **Comparative World Religions.** (2:2:0) F.Su. Palmer  
Hinduism, Jainism, Sikhism, Buddhism.
556. **Comparative World Religions.** (2:2:0) S.Su. Palmer  
Taoism, Confucianism, Shintoism, Judaism, Zoroastrianism, Islam.
557. **Religions of the Ancient Near East.** (2:2:0) F. Nibley
558. **Christian Rites and Liturgy.** (2:2:0) S. Nibley
559. **History of Christianity in Asia.** (2:2:0) F. Palmer

**Graduate Courses**

- 641, 642. **Special Problems in L.D.S. Church History.** (2:2:0 ea.) F.S.Su. Andrus, Backman, Larson, Rich
- 645, 646. **Historical Development of L.D.S. Doctrine and Practices.** (2:2:0 ea.) F. S.Su. Andrus, Backman, Larson, Rich
653. **History of the Papacy.** (2:2:0) F.Su. Horsley
654. **Reformation and Counter-Reformation.** (2:2:0) S.Su. Horsley
- 657, 658. **Comparative Studies in American Religions.** (2:2:0 ea.) F.S. Backman
659. **American Religious Thought.** (2:2:0) S. Bushman
691. **Seminar: History of Asian Religion.** (2:2:0) S. Palmer
699. **Thesis for Master's Degree.** (1-4:1-4:0) F.S.Su. Staff
748. **Readings in L.D.S. Church History.** (1-2:1-2:0) F.S.Su. Andrus, Backman, Larson, Rich
755. **Seminar: History of Religion.** (2:2:0) F.S.Su. Andrus, Horsley, Larson, Palmer, Rich

758. **Readings in Christian History.** (1-2:1-2:0) F.S.Su. Horsley, Nibley  
 759. **Readings in the History of World Religion.** (1-2:1-2:0) F.S.Su. Nibley  
 799. **Doctoral Dissertation.** (1-4:Arr.:Arr.) F.S.Su. Staff

## PHILOSOPHY

### Upper Division Courses

380. **Survey of Philosophy.** (2:2:0) F.S.Su. (G-HA m) Staff  
 Introduction to types, fields, and problems of philosophy.  
 381. **Deductive Logic.** (2:2:0) F.Su. (G-HA m) Riddle  
 Formal aspects of language and deductive logic.  
 382. **Inductive Procedures.** (2:2:0) S. (G-HA m) Riddle  
 Scientific methods.  
 385. **Ethics: Plato to Dewey.** (2:2:0) F.Su. (G-HA m) Patch, Yarn  
 An historical approach to the major ethical theories of the Western world.  
 386. **Introduction to Philosophy of Religion.** (2:2:0) F. (G-HA m) Madsen, Yarn  
 A comparative study of major assumptions in religious thought.  
 470. **History of Ancient Philosophy.** (3:3:0) F.Su. (m) Yarn  
 Western philosophy from the 6th century B.C. to the 5th century A.D.  
 471. **History of Modern Philosophy.** (3:3:0) S.Su. (m) Yarn  
 Western philosophy from the 6th century to the 19th century.  
 472. **Contemporary Ethics.** (2:2:0) S.Su. (m) Madsen, Patch  
 Examination of the meaning and function of moral judgments and the bases of ethical commitment.  
 473. **Philosophy of Science.** (2:2:0) F. (Offered 1963-64 and alternate years) (m) Riddle  
 Examination of the conceptual framework of modern science.  
 474. **Types of Religious Philosophy.** (2:2:0) F. (G-HA m) Madsen, Yarn  
 Survey of philosophical bases of Christian religion.  
 475. **Contemporary Anglo-American Philosophy.** (2:2:0) F.S.Su. (m) Madsen  
 Men and movements in naturalism and logical positivism.  
 476. **Contemporary Continental Philosophy.** (2:2:0) S.Su. (m) Madsen  
 20th century developments in existentialism, phenomenology, and Marxism.  
 477. **Scholasticism, Humanism, Mysticism.** (2:2:0) F.S.Su. (m) Horsley  
 483. **Problems of Knowledge.** (2:2:0) F. (G-HA m) Riddle  
 Analysis of how experience becomes knowledge.

### Graduate Courses

591. **Seminar: Philosophical Analysis.** (2:2:0) S. (Offered 1962-63) Riddle  
 592. **Seminar: History of Philosophy.** (2:2:0) S.Su. Yarn  
 593. **Seminar: Philosophy of Religion.** (2:2:0) S.Su. Madsen  
 594. **Seminar: Philosophy of Science.** (2:2:0) S. (Offered 1963-64) Riddle  
 688. **Readings in Philosophy.** (1-4:1-4:0) F.S.Su. Staff

# Homemaking Education

**Assistant Professor:** Poulson (chairman, 2218 SFLC).  
**Instructors:** Barnett, Hatton.



The objective of the Department of Homemaking Education is two-fold: (1) to provide instruction that will lead to certification to teach in the junior and senior high schools of the United States, and (2) to help the students become prepared for marriage and family living.

A bachelor's degree with certification to teach homemaking or without certification may be earned in homemaking education.

A. Majors desiring to receive a bachelor's degree with a (composite) major and minor in family living and a certificate from the State Department of Public Instruction to teach homemaking education in secondary schools will need to maintain a cumulative grade-point average of 2.25 or above and complete the following program.

## 1. College of Family Living Required Courses—42 hours:

- H.D.F.R. 210, 322, 361—8 hours.
- Nursing 288—1 hour. (Any student who has had family health and nursing in high school will be excused from this course).
- Food and Nutrition 255, 264, 265, 340—10 hours.
- Clothing and Textiles 110, 165, 235, or 300, 260—11 hours.
- Housing and Home Management 250, 330, 335, 351, 370—12 hours.
- Homemaking Education 91—0 hours.
- College of Family Living suggested electives (to be selected in consultation with adviser):
  - Food and Nutrition 110, 245, 370 (110 should be elected by students having no homemaking in high school).
  - Clothing and Textiles 355.
  - Housing and Home Management 220, 380, 381.
  - H.D.F.R. 324, 360.

## 2. General Education Requirements—59 hours:

- Freshman English—4-6 hours.
- Biological science—8 hours.
  - Bacteriology 121
  - Zoology 105
  - Health 130
- Humanities and aesthetics—8 hours.
  - Art 101 or 110
  - Literature
  - Elective

Physical education—2 hours.

Religion—16 hours.

Social science—5 hours.

Psychology 111

H.D.F.R. (Three credit hours from H.D.F.R. courses may be used for social sciences).

History 170—3 hours.

Physical science—11-13 hours.

Chemistry 101, 102

Physics 100 or Math 101 or Geology 101, or other physical science.

### 3. Professional Education Courses—26 hours:

Instruction 301

Educational Administration 310

Health Education 362

Homemaking Education 375, 377, 479

These courses should be taken after student teaching:

Educational Philosophy 415

E.R.S. 304

Instruction 405

B. Majors desiring to receive a bachelor's degree in homemaking education without certification will complete the College of Family Living requirements and suggested electives, and the general education requirements. In addition, Homemaking Education 377 and Speech 102 are strongly recommended. Majors not desiring certification should see an adviser in the Homemaking Education Department to set up their program.

### Suggested Program for Majors Desiring Certification

Freshman Year					
	F	S			
Religion .....	2	2	Clothing and		
English (composition) ..	3	3	Textiles 165 .....	4	
Chemistry 101 .....	5		Clothing and		
Chemistry 102 .....		5	Textiles 260 .....		3
Homemaking			Nursing 288 .....	1	
Education 91 .....	0		English literature .....	3	
Clothing and			Total Hours .....	16½	17½
Textiles 110 .....	2				
Physical education .....	½	½	Junior Year		
Physical science .....		3		F	S
Bacteriology 121 .....		3	Religion .....	2	2
Art 101, 110 .....	2		H.D.F.R. 361 .....		3
Health 130 .....	2		Instruction 301 .....	2	
Total Hours .....	16½	16½	Housing and		
			Home Mgt. 330 .....	3	
			Housing and		
			Home Mgt. 351 .....		2
			H.D.F.R. 322 .....	3	
			Food and Nutrition 340	3	
			Clothing and		
			Textiles 235 or 300 ....		2
			Homemaking		
			Education 377 .....		3
			(or senior year)		
			Homemaking		
			Education 377 .....	3	
			Health Education 362 ..		2
			Housing and		
			Home Mgt. 325 .....		3
			Total Hours .....	16	17
Sophomore Year					
	F	S			
Religion .....	2	2			
Physical education .....	½	½			
Psychology 111 .....	3				
H.D.F.R. 210 .....		3			
Zoology 105 .....		3			
Housing and					
Home Mgt. 250 .....		2			
Food and Nutrition 255	3				
Food and Nutrition					
264, 265 .....		4			

Senior Year	
PLAN A	
First Semester (Block)	
1st Half Semester	
Homemaking Education 479 ....	8
2nd Half Semester	
Housing and Home Mgt. 370 ....	2
Educational Philosophy 415 ....	2
E.R.S. 304 .....	2
Religion .....	2
Total Hours .....	16

Second Semester	
History 170 .....	3
Educational Administration 310 ..	2
Educational Instruction 405 ....	2
Religion .....	2
Electives .....	7
Total Hours .....	16

Senior Year	
PLAN B	
First Semester	
Homemaking Education 377 ....	3
Health Education 362 .....	2
History 170 .....	3
Educational Administration 310 ..	2
Housing and Home Mgt. 370 ....	2
Religion .....	2
Electives .....	3
Total Hours .....	17

Second Semester (Block)	
1st Half Semester	
Homemaking Education 479 .....	8
2nd Half Semester	
Housing and Home Mgt. 370 ....	2
Religion .....	2
E.R.S. 304 .....	2
Educational Philosophy 415 ....	2
Total Hours .....	16

### Preparatory Course

- 91. Orientation to Family Living.** (0:1:0) F.S. Staff  
An exploratory course to orient the student to the major areas of family living.

### Upper Division Courses

- 375. Curriculum Development in Homemaking Education.** (3:3:0) F.S. Staff  
Curriculum development, varieties of learning experiences, and comprehensive techniques are considered with preparation of illustrative material for aid in teaching secondary classes.
- 377. Secondary Teaching Procedures.** (3:3:Arr.) F.S. Prerequisite: Homemaking Education 375. Staff  
See Instruction 377.
- 479. Secondary Student Teaching.** (8:1:Arr.) F.S. Staff  
Supervised teaching carried on in an approved homemaking department of a public school. See Instruction 479.

### Heritage Halls Academic Non-Credit Program:

The Department of Homemaking Education shares responsibility with University Housing for the education of young women residents toward more effective and happy group living in campus housing. Continuous instruction is given at Heritage Halls (women's resident apartments) in the mechanics of everyday group living. The year's program includes management of time, energy, and resources; buying and storing food; planning and preparing adequate meals; care of ranges, refrigerators, and other electrical appliances; good laundering practices and care of washers; care, repair, and production of clothing; and family fun and good group relationships.

A staff of professional home economists is on duty daily at three centers: Snow Hall (Room 13B), Rogers Hall (Room 9B), and Fugal Hall (Room 15B). They produce needed information and guides such as menus, recipes and shopping guides, cleaning suggestions, and management plans; and the staff may draw on the entire College of Family Living faculty to extend the professional service. Demonstrations are given as needed in all phases of homemaking. Residents may call at the centers for help or may request a staff member to visit their apartment

to assist them. The centers are equipped with many aids for homemaking such as recipes, account books, sewing equipment, laundry information, etc. Approximately 2,000 young women are served by this program.

There is opportunity for homemaking education majors in their junior and senior years to assist in this program by participating at the centers.

The course Housing and Home Management 170 (2 credit hours), Gospel Ideals in Daily Living, will be offered by the Department of Housing and Home Management for all women residents of the Heritage Halls. This course is designed to provide learning experiences which will help young women residents to live more effectively and to prepare for their future homemaking.

# Horticulture and Horticultural Specialties

Associate Professor: Ashton.  
 Assistant Professor: Reimschuessel (chairman, 109 HJG).



Horticulture offers a wide choice of activities in the professional, practical, or vocational fields. The art or practice of horticulture may be a pastime, an adventure or a means of exercise and health. It is a hobby for many people.

The Department of Horticulture and Horticultural Specialties offers training in the following areas: (1) fruit production (pomology), (2) floriculture and greenhouse management, (3) landscape design (minor only), (4) landscape maintenance, (5) ornamental horticulture and nursery management, or (6) turf management.

A student majoring in the Department of Horticulture and Horticultural Specialties must meet the entrance and graduation requirements of the College of Biological and Agricultural Sciences. Horticulture majors are required to take, preferably during the freshman and sophomore years, one course from each of the following areas: Agriculture 101, Agricultural Economics 101, 320, 325; Agronomy 141, 302; Animal Husbandry 161, 170, 207; Botany 101, 110. Forum and devotional are recommended for each semester.

All majors planning to do graduate work toward a Ph.D. degree are advised to take Mathematics 101, 111, or 112; Chemistry 101, 102, or 111, 112 and 113; German 101, 102 or French 101, 102; Statistics 221, 431, 531.

Students emphasizing pomology are required to take the following: Horticulture 101, 103, 310, 312, 317, 350, 402, 455, 471. Recommended courses: Agronomy 141, 305, 451 and 459; Botany 101, 176, 440, 450; Chemistry 101 and 102 or equivalent courses; Zoology 105 and 334. A four-year course outline is available from the department. A recommended course outline for the freshman and sophomore years follows:

Freshman Year			Sophomore Year		
	F	S		F	S
English 111, 112 .....	3	3	Religion .....	2	2
Religion .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Horticulture 310 .....		2
Health 130 .....		2	Animal Husbandry		
Math 111 and 112 .....	5	5	161 or 170 .....		2
Botany 101 .....	3		Zoology 176 .....	3	
Horticulture 101 .....	3		Animal Husbandry 207..	3	
Horticulture 103 .....		3	English 250 .....	3	
Forum .....	$\frac{1}{2}$	$\frac{1}{2}$	Agronomy 141 .....		3
Devotional .....	$\frac{1}{2}$	$\frac{1}{2}$	Chemistry 101, 102 .....	3	3
Agriculture 101 .....		1	Ag. Econ. 101, 325 .....	3	4
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	Forum .....	$\frac{1}{2}$	$\frac{1}{2}$
			Devotional .....	$\frac{1}{2}$	$\frac{1}{2}$
			Total Hours .....	18 $\frac{1}{2}$	17 $\frac{1}{2}$

Students emphasizing floriculture and greenhouse management are required to take the following: Horticulture 103, 107, 108, 112, 318, 402, 471; Agronomy 141, 305, 459; Botany 101, 176, 440, 480. Zoology 105 and 334 are recommended. If emphasis is placed on floral designing, the following courses are required: Horticulture 103, 107, 112, 318; Art 110, 314, 415; Housing and Home Management 330 and 410. A recommended four-year course outline is available from the department. A recommended course outline for the freshman and sophomore years follows:

Freshman Year			Sophomore Year		
	F	S		F	S
English 111, 112 .....	3	3	English 250 .....	3	
Health 130 .....	2		Art 110 .....	2	
Botany 101 .....		3	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Religion .....	2	2	Botany 176 .....	3	
History 170 .....	3		Zoology 105 .....		3
Animal Husbandry 170..		3	Chemistry 101 or 111 ....	5	
Agronomy 141 .....	3		Horticulture 318 .....		4
Horticulture 103 .....	3		Horticulture 112, 402 ....	2	3
Horticulture 107 .....		2	Social science .....		2
Horticulture 108 .....		1	Agronomy 141 .....		3
Ag. Econ. ....		3			
Agriculture 101 .....	1		Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$			

Suggested minors: agronomy, botany, economics, sociology.

Students in ornamental horticulture and nursery management are required to take Horticulture 101, 103, 107, 108, 312, 317, 402, 416, 430 and 471; Botany 101, 105, 110, 440; Agronomy 141, 302, 305, 451, 459; Zoology 105 and 334. A course outline for freshmen and sophomores follows: (A four-year course outline is available from the department.)

Freshman Year			Sophomore Year		
	F	S		F	S
English 111, 112 .....	3	3	Religion .....	2	2
Religion .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	English 250 .....	3	
Health 130 .....	2		Art 110 .....	2	
Botany 101 .....	3		Botany 105, 110 .....	3	3
History 170 .....		3	Zoology 105 .....	3	
Animal Husbandry			Chemistry 101 or 111 ..	4	
161 or 170 .....		3	Agronomy 141 .....		3
Geology 111 .....	4		Horticulture 312 .....		3
Horticulture 101 .....	3		Horticulture 317 .....		2
Horticulture 107 .....		2	Agronomy 302 .....		3
Horticulture 108 .....		1			
Ag. Econ. 101 .....		3	Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$			

Suggested minor fields: agronomy, economics, sociology.

Students emphasizing landscape maintenance are required to take Horticulture 101, 103, 107, 108, 312, 317, 402, 416, 430 and 471; Agronomy 141, 302, 451; Botany 101, 110, 205, 440, 480; Chemistry 101; Art 110. (A recommended course outline is available from the department.)

Students in turf management are required to take Horticulture 103, 107, 108, 319, 402, 471; Botany 101, 105, 110, 440; Agronomy 141, 305, 451, 459; Zoology 105 and 334. (A recommended course outline is available from the department.)

Students minoring in landscape design are required to take Horticulture 103, 122, 430; Art 110, 122, 233, 314, 415; Housing and Home Management 330, 410; Drawing 100, 110, 111, 156, 355. (A recommended course outline is available from the department.)

Students minoring in horticulture may select 14 hours from the following: Horticulture 101, 103, 107, 310, 319, 402, 416 or Botany 205; Agronomy 451 and 459.

### Lower Division Courses

- 101. General Horticulture.** (3:3:0) F.S. Home Study also. (m) Ashton  
Principles underlying the profitable production of fruit trees and small fruits and vegetables. Sites, soils, fertilizers, varieties, culture, pest problems, harvesting, storage, and propagation.
- 103. Beautifying the Home Grounds.** (3:3:0) F.S. (m) Reimschuessel  
Principles of design and composition as applied to home ground development and related plant culture.
- 107. Floriculture.** (2:2:0) F.S. Home Study also. (m) Reimschuessel  
Herbaceous plant culture in the greenhouse and out-of-doors.
- 108. Floriculture Laboratory.** (1:0:2) F.S. Reimschuessel  
(To be taken concurrently with Horticulture 107).
- 112. Flower Arrangement.** (2:1:2) F.S. Reimschuessel  
Principles and methods of arranging flowers and other plant materials for decorative use in the home and for exhibition.

### Upper Division Courses

- 310. Small Fruit Production.** (2:2:0) S. (m) Ashton  
Principles and practices of successful and profitable production of small fruits for home and commercial plantings. Special emphasis on new varieties, disease and insect control.
- 312. Practical Orchard Management.** (3:0:5) S. Ashton  
Training, pruning, fertilizing, insect control, and fruit thinning of orchard trees.
- 317. Nursery Practice.** (2:1:2) S. (Offered 1962-63 and alternate years) Pre-requisite: Horticulture 101 or 103 or equivalent. Reimschuessel  
Principles underlying the profitable management of a nursery. Site, soil, culture, and handling of nursery stock. Transplanting, propagation and pest problems.
- 318. Greenhouse Production.** (4:2:4) S. (Offered 1963-64 and alternate years) Prerequisites: Horticulture 107, 108 or equivalent. Reimschuessel  
Principles underlying the management of a greenhouse; cultural practices of growing indoor plants emphasized.
- 319. Turf Management.** (2:1:2) F. (Offered 1962-63 and alternate years) (m) Prerequisite: Horticulture 107, 108 or equivalent. Reimschuessel  
The management of turf grasses as related to climate, soil and use on the golf course, park and private areas.
- 350. Pomology.** (3:3:0) F. (Offered 1963-64 and alternate years) Prerequisite: Horticulture 101. Ashton  
Fruit varieties with respect to their development and uses. Special emphasis given to harvesting, handling, and storage problems.
- 391. Seminar.** (1:1:0) F. Staff  
For majors in junior year. Current literature in horticulture reviewed.
- 402. Plant Propagation.** (3:2:2) S. (m) Ashton  
Principles and practices of plant propagation with special emphasis on fruit and ornamental plants.

- 416. Ornamental Woody Plants.** (3:2:2) S. (m) Recommended: Botany 110.  
Reimschuessel  
Identification, culture, and use of important ornamental woody plants in Utah.
- 430. Landscape and Planting Design.** (3:0:6) F. (Offered 1963-64 and alternate years) Prerequisite: Horticulture 103; drawing recommended. Reimschuessel  
Designs and plant combinations for private and public grounds using woody and herbaceous plants.
- 455. Advanced Pomology.** (3:3:0) S. (Offered 1963-64 and alternate years) Pre-requisite: Horticulture 101. Ashton  
Problems related to the establishing and maintaining of deciduous orchards.
- 471. Pest Control in Orchards and Field Crops.** (3:3:0) F. Prerequisites: Horticulture 101, Botany 101; recommended: Botany 470. Ashton  
Culture, chemical, biological methods, and machines used in control of pests and diseases of orchard and field crops.
- 491, 492. Seminar.** (1:1:0) F.S. Staff  
For majors in senior year. Current literature in horticulture is reviewed.
- 495, 496. Special Problems in Horticulture.** (1-3:Arr.:Arr.) F.S. Staff

**These courses also count in horticulture:**

**Agronomy 459. Plant Breeding.** (2:2:0)

**Botany 480. Diseases of Cultivated Plants.** (3:2:3)

## Housing and Home Management

**Professor:** Cutler.

**Associate  
Professor:** Stanford (chairman, 2230 SFLC).

**Instructors:** Allen, Barlow, Lewis, Viehweg,  
Vincent.



The objectives of the Department of Housing and Home Management are to:

1. Provide an increased understanding and appreciation of the influence of the home environment upon the character of family living.
2. Enhance the usefulness and beauty of the home through understanding and applying the fundamental principles of design.
3. Promote a discriminating selection and proper care of household equipment, thereby increasing the economy, efficiency, and aesthetic appeal of the home.
4. Encourage a refinement of the home through careful selection or design and construction of its furnishings and decorations.
5. Increase the effectiveness of household utilization and control through application of established principles of home management.
6. Prepare the student for a variety of occupations utilizing training in these areas.
7. Establish an intellectual foundation for more effective and abundant living for families on all income levels with varying economic and social expectations.

A major in housing and home management may be completed through satisfying the following University, college, and departmental requirements:

### University

Courses satisfying the University or general education requirement may be selected through individual interest and sense of personal benefit from those listed in General Services section of this catalog.

### College

**Women** majoring in housing and home management may select four or more credit hours of course work in each of the following family living departments: clothing and textiles, food and nutrition, and human development and family relationships.

**Men** electing a major in housing and home management may, through consultation with their advisers, determine those courses in the College of Family Living best suited to their individual needs and occupational objectives.

### Department

Departmental requirements may be satisfied by completing the courses indicated in one of the following areas of emphasis:

#### Housing Design

Housing and Home Mgt. 201, 220 or 221, 330, 380, 410, and 590; Art 110 and 121; Horticulture 103; and I.E. 156 and 355.

#### Furniture Design

Housing and Home Mgt. 220, 330, 380, 381, 410, and 595; Art 110, 121, 263, and 314; and I.E. 105 and 119.

#### Interior Decoration

Housing and Home Mgt. 220, 221, 330, 380, 381, 410, and 595; and Art 110, 121, 314, 359, and 415.

#### Home Management

Housing and Home Mgt. 201, 220, 250, 330, 335, 351, 370, and 380.

A minor in housing and home management may be defined through individual consultation with this and the major department.

### Lower Division Courses

170. **Economics of the Household.** (2:2:10) F.S.Su. (m) Cutler  
Application of principles of home management in group housing situations where L.D.S. ideals of industry, thrift, efficiency, individual and family honor can be developed.
201. **Family Housing.** (3:3:0) F.S.Su. (m) Stanford  
Traditional and contemporary American housing with reference to technological and style developments, rural and urban differences, class values, and social controls.
220. **Home Furnishings.** (2:1:3) F.S.Su. (m) Barlow  
Selection and care of home furnishings with laboratory practice in re-finishing furniture and constructing draperies, lamp shades, slip covers, bedspreads, etc.
221. **Weaving.** (2:1:3) F.S. Barlow  
Creative design applied to woven fabrics with experience in weaving methods. Survey of hand-woven fabrics in various world cultures.
250. **Home Management.** (2:2:0) F.S.Su. (m) Lewis  
Management of time, money, and material resources for the attainment of personal and family goals.

### Upper Division Courses

330. **House Planning.** (3:3:0) F.S.Su. (m) Stanford, Viehweg  
Choice of location, area development, and structural design of the family residence.
335. **Household Equipment.** (3:2:2) F.S.Su. Vincent  
Classroom and laboratory experience in the comparison, selection, and use of different types of household equipment.
351. **Family Finance.** (2:2:0) F.S.Su. (m) Staff  
Economic problems of direct concern to the family today. Types and adequacy of income and its apportionment in terms of family needs and interests.
370. **Home Management House.** (2:2:10) F.S.Su. Prerequisites: Housing and Home Mgt. 250 and 335; Food and Nutrition 340. Lewis  
Experience in applying principles of home management in a family-size group in a family-type house. \$40.00 laboratory fee.

- 380. Interior Decoration.** (3:3:0) F.S. (m) Allen  
Principles of design applied to home decoration. Individual projects in the development of styles in prominence today.
- 381. Interior Decoration.** (3:3:0) S. Allen  
Decoration of the home with emphasis on specific rooms and areas. Alternative uses of natural and artificial lighting, accessories, table settings, etc.
- 410. House Planning Laboratory.** (3:0:6) S. Viehweg  
Individual projects in house planning, kitchen or other specific area design adapted to student interests and objectives.

#### Advanced Undergraduate Courses

- 590. Seminar.** (2:0:3) S. Prerequisites: Housing and Home Mgt. 201 and 330. Stanford
- 595. Readings and Projects.** (1-2:0:3-6) F.S.Su. Stanford  
Consultation and directed use of library and laboratory materials.

**Professors:** Porter (chairman, 1239 SFLC), Cannon, Moss.

**Assistant Professor:** Holbrook.

**Instructors:** Arnold, Barlow, Burr, Jensen, Larsen, Orrock, Taylor, Tyndall.

## Human Development and Family Relationships



Among the purposes of the Department of Human Development and Family Relationships (H.D.F.R.) are the following:

1. To provide opportunities for increased understanding and appreciation of abundant and harmonious living within the family, including its relationship to the church and the community.
2. To help students gain increased self-understanding and appreciation of insight and skills basic to effective human relationships.
3. To provide opportunities for the study of human development and family relationships from infancy through old age which will:
  - (a) facilitate the achievement of successful marriage and parenthood.
  - (b) lead to professional competency for those interested in vocational opportunities in this field.
4. To provide opportunities for research which will ultimately contribute to increased understanding of human development and family relationships.
5. To provide graduate training leading to a master's degree and Ph.D. degree in human development and family relationships.

The B.Y.U. human development laboratories are among the most modern and up-to-date in the nation. Through the laboratories of the University and the facilities of the community, opportunities are provided for the study of human development and family relationships from infancy through old age.

Outstanding students in H.D.F.R. have the opportunity to enhance their professional training by attending one semester at the Merrill-Palmer Institute in Detroit, Michigan, with which the College of Family Living has an affiliation.

### Suggestions for a Minor

For a minor in human development and family relationships, a selection of 14 credit hours from the following courses is suggested: H.D.F.R. 210, 322, 360, 361, 412, 422, 460, 570.

### Requirements for a Major

For a major in human development and family relationships, a minimum of 26 credit hours in the department is required. A maximum of 7 of the 26 hours may be chosen from a selected list of courses in other departments with consent of the departmental adviser. For graduation from the College of Family Living these hours must be combined with enough credits in the college to total 35

semester hours. Each student must complete a minimum of 12 semesters hours in the College of Family Living outside of the department in which he is taking his major. These 12 credit hours must include a minimum of three hours in each of the departments of clothing and textiles, housing and home management, and food and nutrition. (Men, see department chairman for alternate program.)

### Suggested Program for Majors

Freshman Year		Junior Year	
	Hours		Hours
Religion .....	4	Religion .....	4
Freshman English (determined by placement test) .....	6	English (literature) .....	3
Physical education and Health 130 .....	4	Housing and home mgt. ....	2
Physical science group .....	6	Food and Nutrition 245 (women) .....	2
Psychology 111 .....	3	H.D.F.R. 322 .....	3
Humanities group .....	2	H.D.F.R. 360 .....	3
Clothing and textiles (women) ..	4	H.D.F.R. 361 .....	2
Food and nutrition (women) ....	2	H.D.F.R. 412 .....	3
Homemaking Education 91 .....	0	Electives .....	6-10
H.D.F.R. 261 .....	2		
Total Hours .....	33	Total Hours .....	28-32
Sophomore Year		Senior Year	
	Hours		Hours
Religion .....	4	Religion .....	4
Bacteriology 121 .....	3	H.D.F.R. 460 .....	4
Zoology 105 .....	3	H.D.F.R. 492 .....	2
Sociology 111 .....	3	H.D.F.R. 510 .....	3
History 170 .....	3	H.D.F.R. 511 .....	3
Humanities and aesthetics .....	2-4	H.D.F.R. 570 .....	3
Housing and home mgt. ....	2	Electives .....	13
H.D.F.R. 210 .....	3	Total Hours .....	32
Electives .....	6-10		
Total Hours .....	29-35		

### Specialized Programs

Students specializing in child development and/or nursery education must also take H.D.F.R. 422, 423.

Students specializing in professional work with families must also take H.D.F.R. 440, 460, 461, 580.

Students interested in completing a major in human development and family relationships and also qualifying for an elementary teaching certificate may do so.

### For H.D.F.R. Majors Who Wish to Qualify Also for Elementary Teaching Certificate

The successful completion of the following program will (a) provide a major in human development and family relationships, (b) qualify a student for an elementary teaching certificate with a kindergarten efficiency statement attached, (c) satisfy the general education requirements for the University, and (d) complete the College of Family Living graduation requirements. Students will be prepared to teach nursery school, kindergarten, and grades one through six. To enter and to continue in the teacher certification program and the Human Development Laboratory Program, a student must have a 2.25 cumulative grade-point average and must maintain this average each succeeding semester. A student who falls below this average will be suspended from the sequence courses, but may re-enter the program after he brings his grades up to the required level. A student who is suspended from the program a second time may not again re-enter without the specific approval of the appeals committee.

In determining grade-point average, transfer credit may be used for only the first semester of attendance at B.Y.U. After this initial semester, the grade-point average will be determined by using B.Y.U. grades only.

Students will be assigned to Cycle I or II to distribute registration in certain classes evenly throughout the year. Therefore, the semester in which one enrolls in a particular course may vary slightly from the outline which follows:

Freshman Year					
	F	S			
Religion .....	2	2	Education 325 .....	2	
Chemistry 100; Geology 101; Physics 100; or Physical Science 101, 102 .....	3	3	Education 301 .....	2	
English 111, 112 .....	3	3	History 360 or 366 .....	2	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$
Zoology 105 .....	3		Junior Year		
Clothing and textiles ....	4			F	S
Art 101, 108, or 110 ....	2		Religion .....	2	2
Homemaking .....			Educational .....		
Education 91 .....	0		Administration 310 ..	2	
Health 130 .....		2	H.D.F.R. 361, 322 .....	2	3
Food and Nutrition 110 ..		2	H.D.F.R. 360 .....		3
Music 102 .....		2	Health 361 .....	2	
Psychology 111 .....		3	Housing and home mgt. (351 recommended) ..	2	
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	Education 320, 321 .....	3	3
			Education 322 .....		2
			Education 340 .....		2
			Education 406, 422 .....	2	2
			Physical Education 375 ..	2	
			Total Hours .....	17	17
Sophomore Year			Senior Year		
	F	S		F	S
Religion .....	2	2	Religion .....	2	2
Bacteriology 121 .....	3		H.D.F.R. 412, 460 .....	3	4
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	H.D.F.R. 422, 492 .....	4	2
History 170 .....	3		H.D.F.R. 570 .....		3
Art 226 .....	2		Education 415 .....		2
Dramatic Arts 121 .....	3		Education 304 .....		2
Food and Nutrition 245 ..	2		Instruction 449, 405 ....	8	2
Music 237 .....	2		Total Hours .....	17	17
English (literature) .....		3			
H.D.F.R. 210 .....		3			
Housing and home mgt. (350 recommended) ..		2			

Courses in this department are of value both to men and women.

#### Lower Division Courses

**210. Child Development.** (3:3:1) F.S. (G-SS m) Prerequisite: Psychology 111; recommended: Sociology 111. Staff

Consideration of the growth and development of the child and his relationships with his family, peers, and teachers from infancy through adolescence. One hour observation per week as part of preparation.

**261. The Latter-day Saint Family.** (2:2:0) F.S. Staff

Place of the family in L.D.S. doctrine and philosophy, together with application of basic religious principles to marriage and family relationships. A comparison of L.D.S. and non-L.D.S. families in time and space.

These courses also count in H.D.F.R.:

A maximum of seven credit hours from courses listed under the headings "These courses also count in H.D.F.R." may be selected to apply toward a major in H.D.F.R.

**Anthropology 101. Introductory Anthropology.** (3:3:0)

**Nursing 288. Family Health and Home Nursing.** (2:2:0)

## Upper Division Courses

- 322. Creative Experiences with Children.** (3:2:6) F.S.Su. (m) Prerequisite: H.D.F.R. 210 or equivalent. Staff  
Designed to promote increased self-understanding, develop skills in working with children, and gain experiences in the use of creative play materials through participation in the human development laboratories. Lab fee \$4.50.
- 324. Creative Play in Childhood.** (2:2:0) F.S. Prerequisite: H.D.F.R. 210. Staff  
Use of creative play materials in enriching a child's life. Meaning of play and its value in meeting needs of the growing child.
- 360. Achieving Success in Marriage.** (3:3:0) F.S.Su. (G-SS m) Cannon, Moss, Porter, Staff  
Consideration of maturity, love, compatibility, conflict, specific areas of adjustment in marriage, parent-child relationships, and effective management of family resources.
- 361. Family Relationships.** (2:2:0) F.S.Su. (G-SS m) Prerequisites: 6 hours in H.D.F.R., psychology, and sociology. Moss, Staff  
Consideration of the developmental tasks of individual family members through the various stages of the family life cycle and the influence of the family on its members in developing values, goals, attitudes, and patterns of behavior.
- 412. Principles of Child Guidance.** (3:3:0) F. (m) Prerequisite: H.D.F.R. 210. Jensen  
Application of knowledge and understanding of child behavior and psychodynamics of family interaction to guidance of children. Behavior and guidance principles are studied directly in the human development laboratories. Helpful to parents and prospective parents.
- 422. Methods and Teaching Experiences in the Human Development Laboratory.** (4:2:8) F.S. (m) Prerequisites: H.D.F.R. 412, and consent of instructor. Barlow  
Experience in teaching and supervising a group of nursery school children. Students arrange with instructor to spend twelve hours a week in the nursery school laboratories. Lab fee \$9.00.
- 423. Organization and Planning for Pre-School Programs.** (2:2:0) S. Jensen  
Consideration of factors involved in the development of pre-school programs. Study of essential procedures in pre-school planning including housing, equipment, health protection, and food service. Field trip.
- 440. Family Life in the Middle and Later Years.** (2:2:0) S. Prerequisite: 4 hours in H.D.F.R., psychology, and sociology. Cannon  
Adjustments in middle and later years revolving around physical, emotional, and social changes. Emphasis is placed upon needs that arise from changes in family relationships, living arrangements, and employment.
- 460. Marriage and Family Interaction.** (4:4:0) F. (m) Prerequisite: 12 hours in H.D.F.R., psychology, and sociology (including H.D.F.R. 360 and Sociology 403). Cannon, Porter  
An advanced appraisal of courtship, marriage relationships, and family interaction. A professional course designed primarily for majors in H.D.F.R. and related fields.
- 461. The Family and the Law.** (2:2:0) F. Staff  
Consideration of legal aspects of marriage and family life such as marriage statutes, property rights, separation and divorce, adoption, custody of children, wills, etc.
- 492. Seminar in Theory and Concepts.** (2:2:0) S. Prerequisite: 10 hours in H.D.F.R. Cannon, Moss, Porter  
Evaluation and integration of basic theories and concepts in H.D.F.R.

- 493. Seminar in Evaluating Research.** (2:2:0) F. Prerequisite: 10 hours in H.D.F.R. Cannon, Moss, Porter  
Critical analysis and evaluation of all varieties of research studies in H.D.F.R.

**These courses also count in H.D.F.R.:**

A maximum of seven credit hours from courses listed under the headings "These courses also count in H.D.F.R." may be selected to apply toward a major in H.D.F.R.

**Education 325. Arts and Crafts for Early Childhood.** (2:2:1)

**Education 340. Children's Literature.** (2:2:0)

**Psychology 321. Psychology of Adolescence.** (2:2:0)

**Psychology 340. Mental Health.** (2:2:0)

**Psychology 350 or Sociology 350. Social Psychology.** (3:3:0)

**Psychology 445. Exceptional Children.** (2:2:0)

**Recreation 371. Planning for Family and Neighborhood Recreation.** (2:2:0)

**Sociology 403. Marriage and the Family in American Society.** (2:2:0)

#### **Advanced Undergraduate or Graduate Courses**

- 510, 511. Advanced Child Development.** (3:3:0 ea.) F.S. Prerequisite: H.D.F.R. 210. Porter

Intensive study of principles of child development and behavior as they relate to home situations, nursery schools, day-care centers, and other children's programs. Observation of individuals from infancy through adolescence.

- 520. Workshop in Child Development.** (2:2:0) Su. Prerequisite: 8 hours in H.D.F.R. or permission of department chairman. Staff

Intensive study of application of principles of child development and child guidance.

- 570. Community and Professional Responsibilities to Children and Families.** (3:3:0) S. (m) Prerequisites: H.D.F.R. 210, 361; Sociology 111. Porter

Acquaintance with resources of the community as they relate to the welfare of children and families. A consideration of the responsibilities of professional persons working with children and families.

- 575. Parent Education.** (2:2:0) S. Prerequisite: consent of instructor. Staff  
Basic principles in organization of parent study programs. Formulation and presentation of program for parents.

- 580. Introduction to Marriage and Family Counseling.** (2:2:0) F. Prerequisite: consent of instructor. Holbrook

Theories and techniques used in marriage and family counseling. Consideration of individual and group counseling as it pertains to the family.

- 590. Readings in Human Development and Family Relationships.** (1-2:1-2:0) F. S.Su. Prerequisite: consent of instructor. Cannon, Moss, Porter

Discussions and reports of current readings in this field. Open to students who have completed fifteen hours of courses in human development and family relationships.

- 595. Special Topics in Human Development and Family Relationships.** (1-2:1-2:0) F.S.Su. Cannon, Moss, Porter

Individual study for qualified students majoring in human development and family relationships upon consultation with the instructor and the chairman of the department.

596. **Research Problems and Methods in Human Development and Family Relationships.** (2:2:0) F. Cannon, Moss  
 Analysis of research methods used in human development and family relationships. Students have active experience in formulating a research project.

These courses also count in H.D.F.R.:

A maximum of seven credit hours from courses listed under the headings "These courses also count in H.D.F.R." may be selected to apply toward a major in H.D.F.R.

Education 540. **Statistical Methods.** (2:2:0)

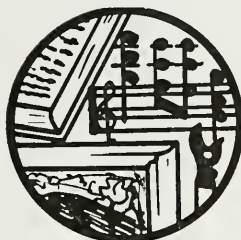
Education 541. **Advanced Statistics.** (2:2:0)

Psychology 550. **Psychology of Personality.** (3:3:0)

Sociology 560. **Family and Kinships.** (2:2:0)

### Graduate Courses

611. **Current Concepts and Research in Child Development.** (2:2:0) F. Porter
661. **Dynamics of Family Interaction.** (2:2:0) S. Prerequisite: H.D.F.R. 360.  
 Porter
663. **Critical Problems in Family Life.** (2:2:0) F. Prerequisite: H.D.F.R. 361.  
 Cannon
664. **Current Concepts and Research in Family Relationships.** (2:2:0) F.  
 Cannon, Moss, Porter
666. **Materials and Procedures in Family Life Education.** (2:2:0) Su. Staff
667. **Problems of Teaching Marriage and Family Relationships in College.** (2:2:0)  
 S. Cannon, Moss
685. **Developmental Use of Play Experiences.** (2:2:0) S. Prerequisite: consent of  
 instructor. Staff
- 692, 693. **Seminar.** (2:2:0 ea.) F.S. Cannon, Moss, Porter
697. **Independent Research.** (1-3:1-3:0) F.S. Cannon, Moss, Porter
699. **Thesis for Master's Degree.** (1-6:1-4:0) Cannon, Moss, Porter
780. **Marriage and Family Counseling.** (2:2:0) F. Prerequisites: H.D.F.R. 580;  
 E.R.S. 625; consent of instructor. Staff
781. **Case Analysis in Marriage Counseling.** (2:2:0) S. Prerequisite: H.D.F.R. 780.  
 Staff
- 785, 786. **Internship in Marriage Counseling.** (3:1:6 ea.) F.S. Prerequisites:  
 H.D.F.R. 780 and 781. Staff
792. **Seminar in Marriage Counseling.** (2:2:0) S. Staff
794. **Special Topics in Human Development.** (1-2:1-2:0) F.S.Su.  
 Cannon, Moss, Porter
795. **Special Topics in Family Relationships.** (1-2:1-2:0) F.S.Su.  
 Cannon, Moss, Porter
797. **Doctoral Candidate Research.** (2-4:2-4:0) F.S.Su. Cannon, Moss, Porter
799. **Dissertation for the Ph.D. Degree.** (Arr.) F.S.Su. Cannon, Moss, Porter




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(An interdepartmental area only)

### Humanities Major

For capable students in the humanities whose educational objectives are not met by a conventional major in one department and a minor in another, the college offers an interdepartmental major and minor, 50 semester hours in art, history, literature (including foreign literature), and music, and will be advised to support these subjects with courses in philosophy, the social sciences, and other related areas. Students will also complete a foreign language program sufficient for the B.A. degree. Of the 50 semester hours required in art, history, literature, and music, at least 25 must be upper division work.

The educational and vocational goals of most students are best served by a conventional major and minor. A selected few students, however, will profit from broader training which includes intensive work in several of the humanities subjects. Such a program has broad cultural value. Through it students may acquaint themselves with the relationships among the various humanities subjects and obtain a valuable liberal education consisting of substantial, well-balanced work in the broad field of the humanities.

Students may enter the humanities program only with permission of the supervisor and should register each semester thereafter under his direction.

### 1. Required Courses for the Major in Humanities: Hours

a. Humanities 101. (To be taken in the freshman or sophomore year) .. 3

b. Art—at least 8 semester hours selected from the following (courses preceded by an asterisk are especially recommended):

*Art 101.	Introduction to Art .....	2
*Art 108.	General Art .....	2
Art 110.	Design in Everyday Life .....	2
*Art 121.	Introduction to Drawing .....	3
Art 122.	Basic Figure Drawing .....	3
*Art 306.	Art History and Appreciation .....	3
*Art 307.	Contemporary Art .....	2
Art 308.	American Art .....	2
Art 403.	Ancient and Primitive Art .....	2
Art 404.	Oriental Art .....	2
Art 405.	Medieval and Renaissance Art .....	3
Art 501.	Aesthetics .....	2

**Note:** Humanities majors are also encouraged to take one or two of the following courses: Art 227, 233, 239, 250, 256, 263.

- c. English—at least 14 semester hours selected from the following courses: English, American, and comparative literature (courses preceded by an asterisk are especially recommended):

*English 251 or 250. Fundamentals of, or Introduction to Literature .....	3
English 252. Introduction to Poetry .....	2
English 253. Introduction to Drama .....	2
English 260. Masterpieces of American Literature .....	3
English 270. Masterpieces of English Literature .....	3
English 275, 276. Survey of English Literature .....	5 ea.
*English 282 or 382 or 582. Shakespeare .....	2 or 3
English 332, 333. The English Novel .....	3 ea.
English 335, 336. The American Novel .....	2 ea.
English 338. The European Novel .....	3
English 345. The Spirit of Tragedy in Literature .....	3
English 355, 356. World Classics .....	3 ea.
English 359. The Short Story .....	2
*English 361, 362. American Literature .....	3 ea.
English 366. Modern Poetry .....	2
*English 371, 372, 373, 374, 375. English Literature .....	3 ea.
English 380. Twentieth Century Literature .....	5
English 481. Chaucer .....	3
English 483. Milton .....	2
English 541, 542, 543. English and American Drama .....	2 ea.
English 550. The Criticism and Appreciation of Literature .....	3
English 572. European Literature of the Renaissance .....	3
English 573. European Literature of the 17th and 18th centuries ..	3

- d. History—at least 10 semester hours selected from the following:

History 110, 111. World Civilization .....	3 ea.
History 304. Greek History and Civilization .....	3
History 307. Roman History and Civilization .....	3
History 312. Renaissance and Reformation .....	2
History 373. American Intellectual and Cultural Growth .....	2
History 521. Medieval Thought and Culture .....	2
History 528. Modern European Thought and Culture .....	2
History 548. Culture of Asia .....	2

- e. Languages—at least 6 semester hours selected from the following:

French 441, 442. Survey of French Literature and Culture .....	3 ea.
French 443, 444. Survey of French Literature and Culture, II .....	3 ea.
German 431, 432. Masterpieces of German Literature .....	3 ea.
German 441, 442. Survey of German Literature and Culture .....	3 ea.
Italian 431, 432. Masterpieces of Italian Literature .....	3 ea.
Latin 441, 442. Survey of Latin Literature and Culture .....	3 ea.
Portuguese 431, 432. Masterpieces of Brazilian and Portuguese Literature .....	3 ea.
Russian 431, 432. Masterpieces of Russian Literature .....	3 ea.
Russian 441, 442. Survey of Russian Literature and Culture in 19th Century .....	3 ea.
Spanish 351. Hispanic Civilizations .....	2
Spanish 441, 442. Survey of Spanish Literature and Culture, I .....	3 ea.
Spanish 451, 452. Survey of Spanish-American Literature and Culture .....	3 ea.

- f. Music—at least 8 semester hours selected from the following:

Music 101. Introduction to Music .....	3
Music 103. Survey of Music Literature .....	2
Music 484, 485. History of Music .....	3 ea.

Note: Humanities majors are also encouraged to take one or two of the many participation courses offered by the Music Department.

**2. Recommended Courses in General Education for the Major in Humanities:****a. At least 7 semester hours selected from the following:**

Church History 453. World Religions .....	2
Church History 555, 556. Comparative World Religions .....	2 ea.
Philosophy 380. Survey of Philosophy .....	2
Philosophy 480. History of Ancient Philosophy .....	3
Philosophy 481. History of Modern Philosophy .....	3
Philosophy 483. Problems of Knowledge .....	2
Philosophy 485. Contemporary Ethics .....	2
Philosophy 487. Contemporary Anglo-American Philosophy .....	2
Philosophy 582. Contemporary Ethics .....	2
Philosophy 587. Scholasticism, Humanism, and Mysticism .....	2

**b. Courses selected as desired from the following:**

Anthropology 101. Introductory Anthropology (G-SS) .....	3
Anthropology 111. Cultures of the World (G-SS) .....	3
Anthropology 246. The Growth of Culture in the New World .....	2
Archaeology 200. Introduction to Archaeology (G) .....	2
Archaeology 380. Old World Archaeology (G-HA) .....	3
Economics 274. Economic and Financial History of the United States (G-HA) .....	3
Economics 383. Comparative Economic Systems (G-SS) .....	3
English 350. The Bible as Literature (G-HA) .....	2
Geography 120. Geography in World Affairs (G-SS) .....	3
Geology 101. Introduction to Geology (G-PS) .....	2
Geology 103. Life of the Past (G-PS) .....	3
Psychology 350. Introduction to Social Psychology (G-SS) .....	3

**3. Recommended Courses Not in General Education for the Major in Humanities:**

Anthropology 241. The Growth of Culture in the Old World .....	3
Economics 580. History of Economic Thought .....	3
Political Science 301. The Development of Political Thought .....	3
Psychology 450. Personality Development .....	3
Psychology 540. Abnormal Psychology .....	3
Sociology 405. Sociological Principles .....	3

**Lower Division Course****101. An Introduction to the Humanities. (3:3:0) F.S.Su. (G-HA) Jacobs, Staff**

Forms of creative expression as revealed in literature, painting, sculpture, architecture, and music. (One hour's credit from this class may be applied toward fulfilling the general education requirement in literature. The two remaining hours may be counted toward fulfilling the humanities requirement, but the student must also take work in a third department of those listed under humanities and aesthetics.)

## Industrial Education



**Professors:** Jeppsen (coordinator of technical and industrial education), Snell (emeritus).

**Associate Professor:** McArthur (chairman, 221 SIE).

**Assistant Professor:** Gamett.

**Instructors:** Allen, Long, McKinnon, Naegle, Pearson, Tolman.

The Industrial Education Department provides three different programs of instruction:

1. **The Industrial Education Program**, offering instruction toward the bachelor's degree in industrial education and the master's degree in industrial education. These programs are designed to prepare successful teachers and supervisors for state certification.
2. **The Technology Program**, offering instruction toward the bachelor's degree in construction, drafting, and machine tool technology; and the two-year technical certificate in these same fields and in welding.
3. **The General Service Courses**, open to all students. These courses offer basic training in fundamental operations and processes, and are designed to give exploration, guidance, and consumer knowledge in crafts and in modern industrial fields.

The general objectives of these programs are to render maximum service to students in their preparation for good citizenship, community living, and to better prepare them for a more successful and productive life.

### REQUIREMENTS FOR THE INDUSTRIAL ARTS EDUCATION CERTIFICATE

Students planning to become teachers are encouraged to seek advisement early concerning the teacher education program. Any attempt to complete one phase of the program ahead of schedule complicates the smooth functioning of the program. Students beginning their professional preparation in the senior year may find it necessary to devote part of a fifth year to complete the program.

### GENERAL EDUCATION REQUIREMENTS

See "General Education Requirements" in the Student Academic Services section of this catalog. These requirements should be distributed throughout the four-year program.

### COURSES FULFILLING MINORS

Courses fulfilling minors are designated, in this department, as follows: industrial arts minor—(iam), crafts minor—(cm), drawing minor—(dm), electronics minor—(em), metalwork minor—(mm), woodwork minor—(wm), farm mechanics minor—(fm).

**EDUCATIONAL REQUIREMENTS FOR CERTIFICATION**

See the requirements listed by the College of Education.

Note that Industrial Education 377 and 479 must be taken in the Industrial Education Department, not in the Department of Instruction.

**INDUSTRIAL ARTS TEACHER EDUCATION**

Major—industrial arts.

Minor—crafts, drawing, electronics, farm mechanics, metalwork, or woodwork.

(See listing in College of Education)

Freshman Year				Junior Year			
	F	S			F	S	
I.E. 105, 100 .....	2	3		I.E. 360, 341 .....	3	2	
I.E. 139, 120 .....	2	2		I.E. 250 .....	2		
Drawing 110, 109 .....	2	1		Instruction 301 .....	2		
I.E. 196, 197 .....	2	2		I.E. 375, 377 .....	2	3	
English 111, 112 .....	3	3		Health 362 .....	2		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$		General education .....		4	
History 170, .....				Minor .....	5	6	
general education .....	3	4		Religion .....	2	2	
Religion .....	2	2					
Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$		Total Hours .....	18	17	
Sophomore Year				Senior Year			
	F	S			F	S	
I.E. 130, 125 .....	2	2		I.E. 479 .....	8		
I.E. 200, 240 .....	3	3		I.E. 405 .....		2	
Drawing 111, I.E. 260 ..	2	3		I.E. 470 .....		2	
General education .....	6	7		E.R.S. 550 or I.E. 540 ...		2	
Health 130 .....	2			E.R.S. 403 .....	4		
Religion .....	2	2		Educational Admin. 310	2		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$		Ed. Philosophy 410 .....	2		
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$		Minor .....		5	
				General education .....		4	
				Religion .....	2	2	
				Total Hours .....	18	17	

**MASTER OF SCIENCE DEGREE IN INDUSTRIAL EDUCATION**

Majors—industrial arts education or technical education.

Suggested minors—education and psychology, guidance and counseling, personnel and industrial relations, supervision and administration, business administration, or industrial management.

**Major requirements:** 18 to 22 semester hours selected from the following:

I.E. 510, 515, 520, 525, 540, 594, 595, 690, 691; E.R.S. 540, 410 or 610.

**Minor requirements:** 10 to 14 semester hours selected in consultation with adviser. See above list of suggested minors.

**Research and Thesis:** E.R.S. 540, 641; I.E. 693, 694, 699.

**Entrance Requirements:** In addition to the requirements for the master's degree listed in the Graduate School section of this catalog, the Industrial Education Department requires:

- Satisfactory completion of 12 semester hours in industrial and technical education undergraduate courses prior to or concurrent with the graduate work.
- Satisfactory completion of a qualifying examination given by the Industrial Education Department.

**INDUSTRIAL TECHNOLOGY****BUILDING CONSTRUCTION TECHNOLOGY**

(Four-year technician degree)

Freshman Year			Junior Year		
	F	S		F	S
I.E. 100, 105 .....	3	2	I.E. 301, 317 .....	3	2
I.E. 139, 125 .....	2	2	C.E. 211, Drawing 310 ..	3	3
Health 130 .....	2		E.T. 205, 206 .....	3	3
Math 121, 122 .....	3	3	General education .....	4	3
English 111, 112 .....	3	3	Minor .....	3	5
General education .....	2	4	Religion .....	2	2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$			
Religion .....	2	2	Total Hours .....	18	18
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$			
Sophomore Year			Senior Year		
	F	S		F	S
I.E. 201, 218 .....	3	2	I.E. 410, 411 .....	3	3
I.E. 210, 211 .....	3	2	Drawing 455, 355 .....	2	3
Drawing 156, 255 .....	3	3	Economics 461, .....		
I.E. 341 .....		2	Accounting 201 .....	2	5
Physics 105, 106 .....	3	3	Business Mgt. 367 .....		2
Math 223, .....			General education .....	6	
general education .....	3	3	Minor .....	3	3
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Religion .....	2	2	Total Hours .....	18	18
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$			

(For the two-year technical certificate program, see the Technical and Semi-Professional Institute section of this catalog.)

**DRAFTING TECHNOLOGY**

(Four-year technician degree)

Freshman Year			Junior Year		
	F	S		F	S
Drawing 110, 111 .....	2	2	I.E. 210 .....	3	
Drawing 156 .....		3	Drawing 355, 356 .....	3	3
Math 121, 122 .....	3	3	I.E. 335, Drawing 311 ..	4	3
English 111, 112 .....	3	3	E.T. 205 .....	3	
Health 130 .....	2		General education .....		5
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Minor .....	3	4
General education .....	4	4	Religion .....	2	2
E.T. 100 .....	1				
Religion .....	2	2	Total Hours .....	18	17
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$			
Sophomore Year			Senior Year		
	F	S		F	S
I.E. 130, Math 223 .....	2	3	I.E. 411 .....	3	
I.E. 100, 125 .....	3	2	Economics 461 .....	3	
Drawing 255, 256 .....	3	2	Drawing 410, 449 .....	3	3
Drawing 210, 257 .....	2	2	Drawing 455, 495 .....	3	3
Physics 105, 106 .....	3	3	General education .....	2	5
General education .....	3	4	Minor .....	2	5
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Religion .....	2	2	Total Hours .....	18	18
Total Hours .....	18 $\frac{1}{2}$	18 $\frac{1}{2}$			

(For the two-year technical certificate program, see the Technical and Semi-Professional Institute section of this catalog.)

### TOOL AND MANUFACTURING TECHNICIAN (Four Year)

Freshman Year			Junior Year		
	F	S		F	S
I.E. 130, 131 .....	2	3	I.E. 331, 332 .....	3	2
I.E. 125 .....	2		Physics 105, 106 .....	3	3
Drawing 111, 311 .....	2	3	Math 223 .....		3
Math 121, 122 .....	3	3	E.T. 206 .....	3	
English 111, 112 .....	3	3	I.E. 330 .....	3	
Minor, Health 130 .....	2	2	Religion .....	2	2
Religion .....	2	2	General education .....	2	4
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	English 216 .....	2	
E.T. 100 .....	1		Minor .....		4
<hr/>			<hr/>		
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$	Total Hours .....	18	18
Sophomore Year			Senior Year		
	F	S		F	S
I.E. 335, 230 .....	4	3	I.E. 431, 432 .....	4	3
I.E. 231, 333 .....	5	3	Minor .....	5	3
Drawing 210, I.E. 240 ..	2	3	General education .....	4	10
E.T. 216, History 170 ....	4	3	Economics 461 .....	2	
Religion .....	2	2	Religion .....	2	2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	<hr/>		
Economics 101 .....		3	Total Hours .....	17	18
<hr/>			<hr/>		
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$			

(For the two-year technical certificate program, see the Technical and Semi-Professional Institute section of this catalog.)

### WELDING TECHNOLOGY

(For the two-year technical certificate program, see the Technical and Semi-Professional Institute section of this catalog.)

### INDUSTRIAL EDUCATION

#### Lower Division Courses

99. Shop Mathematics. (0:2:0) S. Staff
100. Woodwork Fundamentals. (3:1:5) F.S. (iam, wm, fm) McKinnon, Pearson  
Care and use of hand and machine woodworking tools applied in fundamental principles of sawing, joining, fitting, and fastening.
105. Wood Finishing. (2:1:3) F.S. (iam, wm) Gamett  
Preparation of surfaces for the application of finishes, stains, paints, varnishes, lacquers, polishes, etc. Use of brush and air gun.
119. Upholstery I. (2:1:3) F.S. (wm) Gamett  
Typical forms of upholstery, including foundations with and without springs.
120. Acetylene Welding I. (2:1:3) F.S. (mm, fm) Long  
Principles and practices in the fundamentals of oxy-acetylene welding and cutting of steel. A general course open to all college students.
121. Acetylene Welding Laboratory. (3:0:9) F. Prerequisite: concurrent registration in I.E. 120. Long  
Laboratory experience in oxy-acetylene fusion welding, heating, brazing, and cutting of light gauge and plate steel.
125. Electric Welding I. (2:1:3) F.S. (mm, fm) Long  
Principles and practices with electric welding equipment. Methods used

in arc-welding of steel in flat position. A general course open to all college students.

126. **Electric Welding Laboratory.** (3:0:9) S. Prerequisites: I.E. 121; concurrent registration in I.E. 125. Long  
Laboratory experience in arc-welding of steel plate with emphasis on commonly used joints.
130. **Machine Tool Operation I.** (2:1:3) F.S. (mm, fm) Allen, McArthur, Naegle  
Theory and laboratory experience in metal cutting operations with engine lathe, drill press, and pedestal grinder, including use of fundamental hand, measuring and layout tools.
131. **Machine Tool Operation II.** (3:1:5) S. (mm) Prerequisite: I.E. 130. Allen, Naegle  
Theory and practice involving engine lathe, milling machine, shaper, and surface grinder, including machine setup, work layout, clamping, gear cutting, indexing, speed and feed selection.
139. **Sheet Metal and Ornamental Iron.** (2:1:3) F.S. (iam, mm, fm) McKinnon  
Projects in sheet metal, ornamental iron work, and pattern layout.
160. **Recreational Handicrafts.** (2:1:3) F.S. (iam, cm) McKinnon  
Students may work in a selected area according to their interests—woodwork, metalwork, plastics, lapidary work, etc. Course is open to all students interested in leisure time activities.
188. **Farm Machinery.** (3:1:5) F. (fm) Staff  
Care and maintenance of general farm equipment.
189. **Gas and Diesel Engines.** (3:1:5) F.S. (fm) Long  
Care and maintenance of gas and diesel engines. Includes overhaul and rebuilding procedures.
- 196, 197. **Shop Problems.** (2:3:0 ea.) F.S. Staff  
Basic mathematical formulas and procedures used in solving practical problems in mechanical and industrial work, including application of principles of algebra, geometry, and trigonometry.
200. **Woodwork Projects.** (3:1:5) F.S. (wm) Prerequisite: I.E. 100. McKinnon, Pearson  
Use of hand and machine tools in the construction of furniture. Drawings, specifications, and cost estimates of all projects are submitted by the student.
201. **Cabinet Construction.** (3:1:5) F. (wm) Prerequisite: I.E. 200. McKinnon, Pearson  
Design and construction of cabinets used in residential structures.
210. **Carpentry Framing.** (3:1:5) F. (wm, fm) Prerequisite: Drawing 155. McKinnon  
Practical problems in forming, framing, sheathing, and insulation.
211. **Carpentry Finishing.** (2:1:3) S. (wm) Prerequisite: I.E. 210. McKinnon  
Practical problems in interior and exterior trim.
218. **Plumbing.** (2:1:3) S. (fm) McKinnon  
Plumbing and plumbing layout.
221. **Acetylene Welding II.** (5:2:8) F. Prerequisite: I.E. 121. Long  
Advanced practices in all phases of oxy-acetylene welding, including ferrous and non-ferrous metals.
222. **Welding Construction.** (3:1:5) S. Prerequisites: I.E. 121 and 126. Long  
Methods of layout, forming, cutting, and joining steel and alloy plates and shapes as applied to structures and machinery construction.

226. **Electric Welding II.** (5:2:8) S. Prerequisite: I.E. 126. Long  
Principles and practices in position welding of commonly used joints with some work in hard facing, stainless steel, and nickel alloys.
227. **Inert-Gas Welding.** (3:1:5) S. Prerequisites: I.E. 121, 126. Long  
Principles and practices of inert-gas (heliarc) welding of ferrous and non-ferrous metals.
230. **Machine Tool Performance Lab.** (3:1:6) S. Prerequisite: I.E. 131. Allen, Naegle  
Advanced laboratory work with basic and special machine tools, including study of cutting tool forces, speeds feeds, machine horsepower, coolants, tool geometry, preparation and application.
231. **Manufacturing Processes and Materials.** (5:3:6) F. Prerequisites: I.E. 131, 335. Allen  
Economic and technical studies of manufacturing processes including casting, drawing, extruding, forming, metal cutting, and powder metallurgy with study and testing of new manufacturing materials.
240. **Electricity Fundamentals.** (3:2:4) F.S. (iam, em) Gammett, McArthur  
Fundamentals of electricity, including DC and AC motors and generators.
250. **Graphic Arts.** (2:1:3) F.S. (cm) Jenkins  
Fundamentals of the printing industry such as typesetting, book-binding, etc.
260. **Crafts.** (3:1:5) S. (cm) McKinnon  
Fundamental hand and machine operation used in working plastics, wood, and leather.

#### Upper Division Courses

301. **Mill Work.** (3:1:5) F. (wm) Prerequisites: I.E. 200, Drawing 111. McKinnon, Pearson  
Advanced cabinet work and milling operations.
317. **Masonry.** (2:1:3) S. (fm) McKinnon  
Practice in laying cinder or concrete block walls.
319. **Upholstery II.** (2:1:3) F.S. Prerequisite: I.E. 119. Gamett  
Advanced work in upholstery.
325. **Gas and Electric Welding.** (2:1:3) F. (mm) Long  
Advanced work in acetylene and electric welding. For students not majoring in welding technology.
330. **Mechanisms.** (3:3:0) F. Prerequisites: Drawing 210, Physics 105. Naegle  
Graphical solution of problems involving displacement, velocity, and acceleration in tool and machine mechanisms, including study of linkages, gear trains, cams, and power transmission devices.
331. **Manufacturing Analysis.** (3:2:3) F. Prerequisites: I.E. 231, 335. Allen, Naegle  
Includes product design analysis, manufacturing process analysis and selection, machine tool cost and function analysis, and determination of production and tooling costs.
332. **Production Planning.** (2:1:3) S. Prerequisites: I.E. 331, 333, 335. Allen, Naegle  
Involves student planning for mass production of parts following manufacturing analysis; includes routing sheets preparation, tooling specifications, time and motion studies, and plant layouts.
333. **Metrology.** (3:2:4) S. Prerequisite: I.E. 231. Allen, Naegle  
Theory and application of precision tools and instruments for measuring length, angle, flatness, finish, shape, and soundness, including tool selection and use for in-process gaging.

335. **Physical Metallurgy.** (4:3:3) F. Allen  
Ferrous and non-ferrous alloys, emphasizing heat treating characteristics, physical properties, and practical applications. Laboratory experiments include physical testing, micro-examination, carburizing, hardening, tempering.
337. **Pattern Making and Foundry Practice.** (2:1:3) S. Prerequisite: I.E. 100. Staff  
Principles of pattern making taught through wood patterns and sand castings of machine parts.
341. **House Wiring.** (2:2:2) F.S. (fm) McArthur  
Electrical circuits in homes and farm buildings.
360. **Metal Crafts and Lapidary.** (3:1:5) F. (cm) McKinnon  
Projects in metals, lapidary, and enameling.
375. **Organization and Development of Instructional Materials.** (2:2:0) F.S. Prerequisite: completion of or concurrent registration in Instruction 301. Jeppsen  
Organization and development of instructional materials to be used in industrial education classes.
377. **Secondary Teaching Procedures.** (3:3:0) F.S. Prerequisites: I.E. 375, Instruction 301. Jeppsen  
Methods, techniques, and special class room procedures applied to individual and group instruction in industrial education.
405. **Shop Maintenance.** (2:1:3) F.S. Gamett  
Care and maintenance of tools and machines.
410. **Construction Materials and Methods.** (3:3:0) F. McKinnon  
Theoretical aspects of buildings, locations, soil conditions, footings, materials, and equipment.
411. **Estimating.** (3:3:0) S. (Offered alternate years) Staff  
Interpreting plans and specifications. Methods of estimating and figuring costs of materials and labor.
431. **Tool Design I.** (3:1:5) F. Prerequisites: I.E. 330, 332. Allen, Naegle  
Design and construction of jigs, fixtures, gages, boring bars, and single point cutting tools for finishing interchangeable parts. Stresses use of handbooks and reference material.
432. **Tool Design II.** (3:1:5) S. Prerequisite: I.E. 431. Allen, Naegle  
Die design and construction for stamping, forging, forming, and extruding operations, including press design, stamping and forming pressures, feeding mechanisms, and safety features.
470. **Shop Organization and Management.** (2:2:2) S. Prerequisite: completion of or concurrent registration in I.E. 377. Jeppsen  
Organization and management of industrial education shops, including unit, general, and multiple activity types.
479. **Objectives and Practices in Teaching Industrial Arts.** (8:0:30) F.S. Gamett  
Student teaching. Material is prepared, and principles and objectives of the industrial arts program are formulated and discussed.
490. **Special Problems in Metals.** (1-3:Arr.:Arr.) F.S.Su. Staff
491. **Special Problems in Wood.** (1-3:Arr.:Arr.) F.S.Su. Staff
492. **Special Problems in Electricity.** (1-3:Arr.:Arr.) F.S.Su. Staff
493. **Special Problems in Crafts.** (1-3:Arr.:Arr.) F.S.Su. Staff
494. **Special Problems in Graphic Arts.** (1-3:Arr.:Arr.) F.S.Su. Staff

**Advanced Undergraduate or Graduate Courses**

510. **History and Trends in Industrial and Technical Education.** (2:2:0) F.Su. McArthur  
Historical developments of industrial and technical education programs from their early beginnings to the present time.
515. **Principles and Objectives of Industrial and Technical Education.** (2:2:0) F. Su. McArthur  
General philosophy, principles, and objectives of industrial arts, vocational education, and technical education programs.
520. **Analysis in Industrial and Technical Education.** (2:2:0) F.Su. Prerequisite: I.E. 515 or approval of instructor. Jeppsen
525. **Course Construction in Industrial and Technical Education.** (2:2:0) S.Su. Prerequisite: I.E. 520 or approval of instructor. Jeppsen  
Preparation and use of a course of study in industrial and technical fields based on an analysis of the occupation.
540. **Industrial Occupational Information and Guidance.** (2:2:0) F.Su. McArthur
- 594, 595. **Problems in Industrial and Technical Education.** (1-3:1-3:3-6 ea.) F. S.Su. Staff

**Graduate Courses**

- 690, 691. **Seminar.** (1:1:0 ea.) Su. Staff  
Review of latest developments and research findings in the field of industrial and technical education.
- 693, 694. **Reading and Conference.** (1-3:1-3:0 ea.) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) F.S.Su. Staff

**DRAWING****Lower Division Courses**

100. **Free-hand Lettering.** (1:0:1) F.S. Staff  
Practice in lettering as applied in engineering and architectural drawing.
109. **Industrial Arts Design.** (1:1:1) S. Gamett  
Fundamental elements and processes of design in industrial arts.
110. **Mechanical Blueprint Reading.** (2:2:2) F.S. Tolman  
A fundamental course. Covers instruction necessary to understand the purposes and the relationships between specifications and drawings as used in industry.
111. **Mechanical Drawing Fundamentals.** (2:1:5) F.S. Home Study also. Prerequisite: Drawing 110 or approval of instructor. Staff  
Care and use of instruments; lettering, applied geometry, and orthographic projection.
155. **Architectural Blueprint Reading.** (2:2:2) F.S. Tolman  
A fundamental course designed to teach students how to read and interpret architectural drawings.
156. **Small House Planning.** (3:1:5) F.S. Home Study also. Prerequisite: Drawing 110 or approval of instructor. Snell, Tolman  
Small-house plans, elevations, sections, and details.
210. **Descriptive Geometry.** (2:1:3) F. Prerequisite: Drawing 111 or 156. Naegle  
Principles relating to point, line, plane, cylinder, cone, and double curved surfaces, etc., with application to practical problems.

- 255. Architectural Perspectives.** (3:1:5) F.S. Home Study also. Prerequisite: Drawing 156. Snell, Tolman  
Development of small-house plans with methods of drawing architectural perspectives, shades, and shadows.
- 256. Rendering.** (2:1:3) F.S. Prerequisite: Drawing 255. Snell, Tolman  
Wash rendering practice plates and rendering of architectural elements.
- 257. Topographical Drawing.** (2:1:3) F.S. Prerequisite: Drawing 111 or 156. Snell, Tolman  
Topographical symbols, mapping, and plotting.

#### Upper Division Courses

- 310. Utilities Layout.** (3:1:5) S. Prerequisite: Drawing 111 or 156. Tolman  
Intersections, developments, and triangulation; electrical symbols, lighting and service layouts; design and layout of piping systems.
- 311. Mechanical Detail Drawings.** (3:1:5) Prerequisite: Drawing 111. Staff  
Machine fastenings, technical sketching, working drawings, detailing, jigs, and fixtures.
- 355. Residential Planning.** (3:1:5) F.S. Prerequisite: Drawing 156. Snell, Tolman  
Planning and designing residential structures.
- 356. Commercial Structure Planning.** (3:1:5) F.S. Prerequisite: Drawing 355. Snell, Tolman  
Students design and plan a small commercial building with complete working drawings.
- 410. Mechanical Drawing and Production Illustration.** (3:1:5) F.S. Prerequisite: Drawing 311. Tolman  
Application of pictorial drawings to problems of assembly in industry.
- 449. Special Problems in Mechanical Drawing.** (1-3:Arr.:Arr.) F.S.Su. Prerequisite: Drawing 410. Staff
- 455. Structural Fabrication Planning.** (2:1:3) S. Prerequisites: Mathematics 122, Drawing 311. Staff
- 495. Special Problems in Architectural Drawing.** (1-3:Arr.:Arr.) F.S.Su. Prerequisite: Drawing 356. Staff

**Professor:** Smith.

## Journalism

**Assistant Professors:** Paulson (chairman, 160 SSC),  
Burnett, Butterworth.

**Instructors:** Barney, Duerden.



The primary objective of this department is to prepare qualified students for professional careers in major areas of mass communications. This preparation includes a broad base of general education, thorough orientation in the functions and responsibilities of the institutions of communication in modern society, and the development of skills in fact-finding, analysis, and communication. In addition to the undergraduate concentrations listed below, graduate courses are offered leading to the master's degree.

For the general student, the department provides service courses in the development of communication skills, and courses 101 and 410 which are part of the University's general education offerings in humanities and aesthetics.

Students planning to major in the department should complete the general education requirements prescribed by the University, the departmental core curriculum, and one of the following concentrations: news-editorial, advertising and public relations, radio-television, or journalism education. Students transferring credit from another institution should confer with the department chairman to determine appropriate evaluation of work taken in the major field.

### GENERAL EDUCATION

See "General Education Program" in the Student Academic Services section for courses which may be taken to fill prescribed areas in general education.

Journalism majors are advised to obtain a broad background in the social sciences. Two years of study in a foreign language is recommended.

In filling the general education requirement in American history and government, it is recommended that majors in journalism take Political Science 110 and either History 121 or Economics 274. One of these combinations of courses should be taken in place of History 170.

### DEPARTMENTAL CORE CURRICULUM

All journalism majors must complete the following core courses in the department, totaling 10 credit hours.

#### Freshman and Sophomore Years

Journalism 101, 211 .....	4 hours
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#### Junior and Senior Years

Journalism 410, 490 .....	6 hours
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## I. NEWS-EDITORIAL CONCENTRATION

The news-editorial concentration is designed to prepare students for work on the news and editorial staffs of daily and weekly newspapers and press services. It emphasizes the gathering and evaluation of factual information, and seeks to develop competence in writing and editing news and feature material for publication. In addition to the core curriculum, each student must complete a minimum of 18 credit hours in journalism including 15 credit hours in the courses specified below:

### Required Courses

Journalism 111, 212, 250, 307, 321, 323 ..... 15 hours

### Recommended Electives (3 hours to be selected)

Journalism 315, 330, 340, 491, 566.

## II. ADVERTISING AND PUBLIC RELATIONS CONCENTRATION

The advertising and public relations concentration provides study leading to professional work in advertising and public relations agencies, newspapers, radio and television stations, and advertising or public relations departments of manufacturing, business, and public institutions. In addition to the core curriculum, each student must complete 12 credit hours in required journalism courses listed below, and at least 4 credit hours selected from either the advertising or the public relations electives listed.

### Required Courses

Journalism 250, 330, 331 or 351, 450, 561 ..... 12 hours

### Advertising Electives (4 hours to be selected)

Journalism 307, 331 or 351, 491; Business Management 555.

### Public Relations Electives (4 hours to be selected)

Journalism 212, 491, 563, 566.

At least 18 hours of the following additional courses, selected in consultation with his adviser, should be presented by each student in the advertising and public relations concentration: advertising emphasis—Business Management 347, 455; Economics 111, 274 or equivalent; Psychology 111. Public relations emphasis—Business Management 340 or 420; Economics 111, 274 or 461; Psychology 111, 330 or 350; Sociology 111, 350 or 446.

## III. RADIO-TELEVISION CONCENTRATION

The radio-television concentration offers a program of courses in journalism and speech to prepare students for work in advertising, news, and programming positions for radio and television stations, networks, and broadcasting service agencies. In addition to the core curriculum, the student must complete 12 credit hours in required courses listed below, and at least 6 credit hours selected from the list of recommended electives.

### Required Courses

Journalism 307, 340; Speech 241, 346, 449 ..... 12 hours

### Recommended Electives (6 hours to be selected)

Journalism 212, 319, 330, 351, 450; Speech 452, 453, 455, 456.

## IV. JOURNALISM EDUCATION CONCENTRATION

The journalism education concentration is designed for students planning to teach journalism and related language arts subjects in secondary schools, or to supervise student publications and public information activities in high schools or junior colleges. Teacher-education courses and subject-matter requirements in major and minor areas are prescribed in the College of Education section of this catalog.

In addition to the departmental core curriculum, the student must complete 13 credit hours in required journalism courses listed below, and at least 5 credit hours selected from the list of recommended electives.

### Required Courses

Journalism 212, 250, 321, 323, 330 ..... 13 hours

### Recommended Electives (5 hours to be selected)

Journalism 111, 307, 315, 331, 340, 561.

### Supplementary Information

The requirements in the concentrations listed above may be modified to allow for previous experience or individual needs upon permission of the chairman of the department. For especially qualified students, individual programs of study may be outlined in photo journalism, broadcast news and advertising, or community journalism.

In addition to maintaining the minimum grade-point averages required by the academic standards of the University, majors in the department must maintain a grade-point average of 2.5 or higher in all work taken in journalism. Not more than 36 credit hours in journalism may be included in the undergraduate program unless the student presents more than 128 credit hours for graduation with the baccalaureate degree.

### Requirements for a Minor

The teaching minor in journalism includes 14 credit hours from courses 211, 212, 321, 323, and 490, plus 4 hours selected from courses 101, 111, 250, 330, and 410.

The general minor in journalism includes 14 credit hours selected from the departmental curriculum, preferably from the core curriculum and one of the concentrations listed above.

### Lower Division Courses

101. **Introduction to Mass Communications.** (2:2:0) F.S.Su. Home Study also. (G-HA) Barney, Burnett, Paulson

A survey of the media of mass communication and their functions in modern society.

111. **Elementary Photography.** (2:1:3) F.Su. Barrus

A practical introduction to photography for the non-science student; laboratory exercises in the use of cameras and processing equipment.

211. **Basic Reporting.** (2:1:3) F.S.Su. Home Study also. Not open to freshmen. Barney

Principles of gathering, writing, and evaluating news for newspapers and broadcast media; practice in writing news; study of newsgathering organization, news values, and sources. Use of typewriter required.

212. **Advanced Reporting.** (3:2:3) F.S. Prerequisite: Journalism 211. Barney

Newsgathering techniques; practice in handling assignments in politics, sports, society, science, law enforcement, and other news areas.

250. **Typography and Printing Processes.** (2:2:2) F. Staff

Lectures and laboratory exercises in selection and use of type and engravings in editorial and advertising areas of newspapers and magazines; printing and engraving processes.

This course also counts in journalism:

- Speech 241. **Introduction to Radio and Television Broadcasting.** (2:2:3)

### Upper Division Courses

307. **Communication Law.** (2:2:0) F. Burnett

Legal limits and privileges of press, radio, and television; principles of libel, contempt, copyright, and right of privacy.

- 315. Press Photography.** (2:1:3) S. Prerequisite: Journalism 111 or equivalent.  
Barrus  
Principles of photography for newspapers and periodicals; practice in the use of professional equipment for taking and processing news and advertising pictures.
- 319. Motion Picture and Television Photography.** (2:2:1) S. Prerequisite: Journalism 111 or equivalent.  
Barrus  
Principles of cinematography as a medium of communication; camera technique, script preparation, film editing, titling, and narration.
- 321. Copyreading and Editing.** (3:2:3) F.S.Su. Prerequisites: Journalism 212, 250. (250 may be taken concurrently.)  
Paulson  
Copyreading, headline writing, news evaluation, and page makeup for newspapers. The student works with city, suburban, and news service copy.
- 323. Practical Reporting and Editing.** (3:1:8) F.S.Su. Prerequisite: Journalism 321. (321 may be taken concurrently.)  
Paulson  
Supervised experience in reporting, copyreading, and editing assignments on the Daily Universe; individual conferences with instructor.
- 330. Introduction to Advertising.** (2:2:0) F.S.  
Duerden  
Principles of advertising and its role in the American economy; values to advertisers and media. Newspaper, radio, and television advertising are emphasized.
- 331. Advertising Copy and Layout.** (2:1:3) F. Prerequisites: Journalism 250, 330. (330 may be taken concurrently.)  
Duerden  
Reader interest, sales appeal, and production techniques for advertising in printed media. Students design retail and product advertisements for Daily Universe publications.
- 340. Radio and Television News Writing and Editing.** (3:2:3) F.S.Su. Prerequisite: Journalism 212.  
Barney  
News preparation and production of newscasts and special programs. Consideration of interviews, documentaries, commentaries, editorials, and special events. Practical and lab experience provided.
- 351. Radio and Television Advertising.** (2:2:0) F. Prerequisite: Journalism 330.  
Paulson  
Advertising principles for broadcast media; study of research, station coverage, and audience measurement. Writing commercials, programs, spot announcements; time buying, production, transcription, and film services.
- 410. History of Mass Communication.** (3:3:0) F. Home Study also. (G-HA)  
Burnett  
Development of American newspapers, magazines, and broadcast communication media from colonial beginnings to the present, viewed in relation to the political, social, and economic history of the times.
- 450. Advertising Media and Campaigns.** (3:2:3) S. Prerequisites: Journalism 330, and 331 or 351.  
Duerden  
Research and planning of advertising campaigns as related to national and local objectives; media selection and budgeting; individual project in production of an advertising campaign.
- 471. Magazine Article Writing.** (2:2:0) F.S.Su. Home Study also. Prerequisite: ability to typewrite.  
Paulson  
Planning and writing non-fiction articles for sale to periodicals. Analysis of magazine markets and criticism of articles written in the course.
- 490. Practices and Problems in Mass Communication.** (3:3:0) S. Home Study also.  
Burnett  
Comprehensive review of the field of mass communication, including analysis of policies, practices, and problems of the mass media as social instruments. Individual writing projects.

- 491. Projects in Communication Practice.** (1-2:Arr.:Arr.) F.S.Su. Staff  
Laboratory projects for upper division students in advertising, editing, photography, radio, or television. Maximum of 2 hours credit in any one field.

These courses also count in journalism:

- Speech 346. Radio and Television Production Workshop.** (2:1:2)  
**Speech 449. Radio and Television Programs and Audiences.** (3:3:0)  
**Speech 452, 453. Radio and Television Announcing.** (1:1:0)  
**Speech 455, 456. Television Production and Direction Workshop.** (2:1:2)

#### Advanced Undergraduate or Graduate Courses

- 561. Public Relations.** (3:3:0) F.Su. Burnett, Duerden  
Philosophy and practice of public relations in business, governmental, educational and other institutions; study of publics, media, and methods. Case studies of public relation practice.
- 563. Projects in Public Relations.** (1:0:3) F.S.Su. Butterworth  
Field projects in public relations practice for selected business, industrial or non-profit institutions. (Limited to majors and minors.)
- 566. Industrial Magazine Editing and Production.** (2:2:0) S. Prerequisites: Journalism 211, 321. Duerden  
Principles of layout and design for house magazines and business publications. Contemporary problems in content and production.
- 574. Teaching Methods in Journalism.** (2:2:0) Su. Prerequisite: Journalism 321 or equivalent. Burnett  
Teaching methods for journalism in the secondary school and junior college. Planning and supervising school newspapers. Disseminating school publicity in the public media.
- 576. School Yearbook and Magazine Production.** (2:2:0) Su. (Offered 1963-64 and alternate years) Staff  
Planning and supervising production of school yearbooks and magazines, including copy, illustration, layout, printing, binding, and business management.

This course also counts in journalism:

- Business Management 555. Problems in Advertising.** (3:3:0)

#### Graduate Courses

- 671. Research Methods in Mass Communications.** (2:2:0) F. Burnett  
Research techniques in communication fields, including readership, readability, content analysis, and audience measurement. Introduction to thesis writing.
- 672. Mass Communication and Society.** (3:3:0) S. Burnett  
Concepts of mass communication in contemporary society; critical evaluation of responsibilities and performance of the mass media of press, radio, television, and film.
- 680. World Communication Channels.** (2:2:0) S. Burnett  
Communication media in principal areas of the world. Problems of international communication and barriers to the flow of information between peoples.
- 690. Seminar in Mass Communication.** (1:1:0) S.Su. Staff
- 691, 692. Special Studies in Communication.** (1-3:Arr.:Arr.) F.S.Su. Staff  
Individual work on approved problems not leading to a thesis. Projects must be approved before registration.
- 694. Readings in Mass Communications.** (1-2:Arr.:Arr.) F.S.Su. Prerequisite: consent of instructor. Staff
- 699. Thesis for Master's Degree.** (2-4:Arr.:Arr.) F.S.Su. Staff

## Languages



**Professors:** Taylor (chairman, 326 McKay), Cummings (emeritus), de Jong, Lee, Nibley, Rogers, Watkins, Wilkins.

**Associate Professors:** V. A. Anderson, Clark, Hansen, Valentine.

**Assistant Professors:** C. D. Anderson, Brown, Folsom, Gibson, Seely.

**Instructors:** Gubler, Heudier, Polevoy, Smithson, Taysom.

**Special Instructor:** Baird.

The study of a foreign language is a unique educational experience. It is a means by which the student can participate in the inner life of another people and share their culture. Through the study of a foreign language, the student also comes to learn his own language better. The poet and philosopher Goethe said, "He who knows no other language, knows not his own."

The objectives of the courses in the Department of Languages are:

1. **General:** To teach the student to understand and to speak the language with facility and to develop skill in reading and writing.

To provide a survey of foreign literatures and to acquaint the student with foreign cultures.

2. **Specific:** To prepare students for the teaching profession, government work at home and abroad, international trade, L.D.S. missions in foreign countries, and research leading to advanced degrees.

**Languages required for B.Y.U. Degrees.** Every degree of Bachelor of Arts or Master of Arts granted by the University requires the completion of the equivalent of at least 16 hours of an approved foreign language. The degree of Doctor of Philosophy to be granted by this University requires reading proficiency in two foreign languages, one of which must be French or German.

**Library and Laboratory Facilities.** The department has good library facilities and a language laboratory permitting emphasis on the most modern language teaching techniques. The tape library contains some of the best dramatic and poetic works in the principal languages of the world.

**Credit for Study in High School.** For students who have studied a foreign language in high school, the 16-hour languages requirement for the B.A. degree may be proportionately reduced for each unit of high school work completed. Students who have had high school language training may obtain advanced standing after consultation with the department.

**Special Examination for Foreign Residence.** Students who have had foreign residence may, with the consent of the department, obtain up to 16 hours of special foreign language credit. This may be done in two ways: (1) by successfully completing a more advanced course in the language, or (2) by passing a series of examinations administered by the department. The credit is available by either method upon payment of a special fee. Foreign students are not permitted to obtain credit in this way for their native language.

**Major and Minor Requirements.** In French, German, Spanish, Russian, Portuguese, and Latin, the department offers programs leading to a departmental major or minor with the Bachelor of Arts degree. The requirement for a major is 24 hours of credit beyond the second year, part of which may be chosen from other areas which complement the major language. No more than nine of these 24 hours toward the major may be earned through home study courses. Recommended classes which support the major field are listed under each separate language offering. These may be chosen only in consultation with the major adviser. The requirement for a teaching minor is 14 hours beyond the second year. The department reserves the right to specify certain courses to be used toward a degree in these foreign languages. Areas that serve as minors include a second foreign language, English, one of the fine arts, history, political science, sociology, etc.

**Prospective Graduate Students.** Prospective graduate students are reminded that a second, and sometimes a third, language will be required of them in graduate school. It is advisable that work in at least one other language be started before the junior year. Students must follow specific steps in their progress toward a graduate degree. It is their responsibility to obtain these regulations from the department chairman and follow them. Graduate students who have the consent of the instructor may register for certain undergraduate courses.

**Baccalaureate Degree Offered.** The Department of Languages offers the Bachelor of Arts degree.

## ARABIC

### Lower Division Courses

- 101, 102. **First Year Arabic.** (5:5:1 ea.) F.S. (G-HA) Staff  
The modern spoken language. Designed for those who have had no Arabic.

## CHINESE

### Lower Division Courses

- 101, 102. **First Year Chinese.** (4:4:2 ea.) F.S. Staff  
Designed for those who have had no Chinese.
201. **Intermediate Chinese Reading and Conversation.** (4:4:1) F. Prerequisite: Chinese 102. Staff

### Upper Division Courses

301. **Selected Readings.** (4:4:0) S. Prerequisite: Chinese 201 or consent of instructor. Staff
- 321, 322. **Chinese Composition and Conversation.** (3:3:0) F.S. Staff

## FRENCH

The requirement for a major is 24 hours of upper division courses which must include French 321, 322, 441, 442, 443, 444. The remaining six hours may be chosen from among other French offerings or the following highly recommended courses, with the approval of the major adviser: Linguistics 325; History 311, 312, 332; Philosophy 380, 580, 581; English 550.

The requirement for a teaching minor is 14 hours of upper division courses which must include French 321, 322, 442, 443. A non-teaching minor requires any 14 hours of French.

### Lower Division Courses

- 101, 102. **First Year French.** (4:4:4 ea.) F.S.Su. (G-HA m) Staff  
Designed for those who have had no French. Conversation, pronunciation,

reading, fundamentals of grammar, vocabulary building. Four hours weekly in laboratory and cultural activities.

201. **Intermediate Reading and Conversation.** (4:4:2) F.S.Su. Home Study also. (m) Prerequisite: French 102, three years of French in high school, or consent of instructor. Brown, Clark, Heudier, Lee, Seely, Smithson, Staff
211. **Second Year Conversation.** (2:2:2) F.S. (m) Prerequisite: French 102 or consent of instructor. Staff

#### Upper Division Courses

301. **Advanced Reading and Conversation.** (4:4:2) F.S.Su. (m) Prerequisite: French 201 or consent of instructor. Brown, Clark, Heudier, Lee, Seely, Smithson, Staff  
Extensive readings of intermediate and advanced edited texts.
- 321, 322. **French Composition and Conversation.** (3:3:1) F.S. Home Study also. Prerequisite: sixteen hours of French or equivalent. Brown, Clark, Heudier, Lee, Seely, Smithson
360. **French Phonetics and Pronunciation.** (2:2:1) F.S. Prerequisite: eight hours of French or equivalent. Staff
377. **Secondary Teaching Procedures.** (3:3:1) F.S.Su. Prerequisites: Instruction 301 and French 322 or equivalent as determined by adviser. Staff
- 441, 442. **Survey of French Literature and Culture I, Origins to 1800.** (3:3:0) F.S. Home Study also (G-HA) Prerequisite: French 301 or consent of instructor. Staff  
General view of literary periods, movements, and social backgrounds with representative readings.
- 443, 444. **Survey of French Literature and Culture II, 1800 to Present.** (3:3:0) F.S. Home Study also. (G-HA) Prerequisite: French 301 or consent of instructor. Staff  
General view of literary periods, movements, and social backgrounds with representative readings.  
Listed under French 431, 432 in Home Study catalog.
451. **Survey of French Literature and Culture in the Americas.** (2:2:0) Su. Prerequisite: French 301 or consent of instructor. Staff  
Origins to present time; Canada, United States, Central and South America.
- 490, 491. **Seminar in French Literature.** (1-2:Arr.:Arr.) F.S.Su. Staff  
Assignments are made to fit the individual needs of the advanced student.

#### Advanced Undergraduate or Graduate Courses

520. **French Composition and Grammar.** (2:2:1) F.S.Su. Staff
521. **Introduction to Romance Philology.** (2:2:0) F. (Offered 1962-63 and alternate years) Clark
522. **History of French Language.** (2:2:0) S. (Offered 1962-63 and alternate years) Clark, Lee
543. **Introduction to French Civilization.** (2:2:0) F.S.Su. Brown, Clark, Heudier, Lee

#### Graduate Courses

660. **Old French Literature.** (2:2:0) S. (Offered 1963-64 and alternate years) Clark, Lee

665. **French Literature of the Renaissance.** (2:2:0) F. (Offered 1963-64 and alternate years) Brown, Clark, Lee
670. **French Literature of the 17th Century.** (2:2:0) S. (Offered 1962-63 and alternate years) Brown
674. **Molière.** (2:2:0) S. (Offered 1963-64 and alternate years) Brown, Clark, Lee
675. **French Literature of the 18th Century.** (2:2:0) F. (Offered 1963-64 and alternate years) Clark, Seely
680. **French Drama of the 19th Century.** (2:2:0) F. (Offered 1963-64 and alternate years) Lee, Smithson
681. **French Novel of the 19th Century.** (3:3:0) S. (Offered 1963-64 and alternate years) Brown, Lee, Smithson
685. **French Literature of the 20th Century.** (2:2:0) F. (Offered 1962-63 and alternate years) Lee, Seely
686. **Modern French Drama.** (2:2:0) S. (Offered 1962-63 and alternate years) Lee, Seely
687. **Modern French Novel I.** (2:2:0) F. (Offered 1962-63 and alternate years) Brown, Lee, Seely
- 690, 691. **Directed Readings in French.** (1-2:1-3:0) F.S.Su. Staff
- 692, 693. **Seminar in Philology.** (1-2:1-3:0) F.S.Su. Staff
- 694-698. **Seminar in French Literature.** (1-2:1-3:0) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) F.S.Su. Staff

## GERMAN

The requirement for a major is 24 hours of upper division courses beyond the second year, which must include German 321, 322, 441, 442, 443, 444, and 6 hours from the following list of recommended courses: English 550; Geography 460; German 360, 377, 520; History 311, 312, 333; Linguistics 325; Philosophy 380, 580, 581.

The requirement for a teaching minor is 14 hours of upper division courses beyond the second year as follows: German 321, 322, and any two of 442, 443, 444. A non-teaching minor is 16 hours of one foreign language.

### Lower Division Courses

- 101, 102. **First Year German.** (4:4:2 ea.) F.S.Su. (G-HA m) Anderson, Rogers, Watkins, Staff  
Designed for those who have not had German. Pronunciation, reading, fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.
201. **Intermediate German Reading and Conversation.** (4:4:1) F.S.Su. Home Study also. (m) Prerequisite: German 102 or three units of German in high school or consent of instructor. Anderson, Rogers, Watkins  
Conversation, review of grammar, vocabulary building.

### Upper Division Courses

301. **Selected Readings.** (4:4:0) F.S.Su. (m) Prerequisite: German 201 or consent of instructor. Anderson, Rogers, Watkins  
Extensive readings of intermediate edited texts.
- 321, 322. **German Composition and Conversation.** (3:3:0 ea.) F.S. Home Study also. Prerequisite: sixteen hours of German or equivalent. Anderson, Folsom, Rogers, Watkins

360. **German Phonetics and Pronunciation.** (2:2:0) S. Folsom, Staff
377. **Secondary Teaching Procedures.** (3:3:1) F.S.Su. Prerequisite: Instruction 301 and German 322 or equivalent. Staff  
Skills mastery, hearing, speaking, reading, writing and identification of teacher-pupil activities required for conceptual learning. Lectures, demonstrations, and application of linguistic techniques to practical classroom requirements.
- 385, 386. **Scientific German.** (3:3:0) F.S.Su. Home Study also. Prerequisite: one year of college German or equivalent. Anderson, Staff
- 441, 442. **Introduction to German Literature and Culture.** (3:3:0 ea.) F.S. Home Study also. (G-HA) Prerequisite: German 301 or consent of instructor. Anderson, Folsom, Rogers, Watkins  
General view of important literary works and movements as they are related to the German cultural background.
- 443, 444. **Introduction to German Literature and Culture.** (3:3:0) F.S. (G-HA) Prerequisite: three years of college German or its equivalent. Anderson, Folsom, Rogers, Watkins  
General view of important literary works and movements as they are related to the German cultural background. 443, literature and culture to the end of the 19th century; 444, literature and culture from 1900 to the present.
- 490, 491. **Individual Study in German.** (1-3:Arr.:Arr.) F.S.Su. Anderson, Folsom, Rogers, Watkins  
Assignments are made to fit the individual needs of the advanced student.

#### Advanced Undergraduate or Graduate Courses

520. **Advanced German Composition and Grammar.** (2:2:0) S.Su. Anderson, Rogers
522. **History of the German Language.** (2:2:0) S. Prerequisite: three years of college German or its equivalent. Folsom, Watkins

#### Graduate Courses

600. **Cultural History of Germany.** (2:2:0) S.Su. Watkins
622. **Gothic and Old High German.** (5:5:0) F. Watkins  
Introduction to comparative Germanic philology through a study of linguistic forms in old Germanic languages, principally Gothic and old High German.
624. **Middle High German.** (3:3:0) S. Watkins
643. **German Lyric Poetry.** (2:2:0) F. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Anderson, Rogers
644. **The Modern German Drama.** (2:2:0) S. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Anderson
645. **The Modern German Novel.** (2:2:0) F. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Anderson
646. **The German Short Story.** (2:2:0) S. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Anderson
676. **Lessing.** (2:2:0) F. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Rogers
677. **Schiller.** (2:2:0) S. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Rogers

678. **Goethe.** (2:2:0) F. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Rogers
685. **Contemporary German Literature.** (2:2:0) S. Prerequisites: German 431, 432, 441, 442, or consent of instructor. Anderson, Rogers
- 690, 691. **Directed Readings.** (2:0:Arr.) F.S.Su. Anderson, Rogers, Watkins
- 692, 693. **Seminar in Philology.** (2:2:0) S.Su. Watkins
- 694-698. **Seminar in Literature.** (2:2:0) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) Arr. Staff

### HEBREW

- 101, 102. **First Year Hebrew.** (4:4:2) F.S. (G-HA) Rasmussen  
A beginning course in modern Hebrew as spoken in Israel today. Vocabulary based on Biblical Hebrew provides a foundation for those interested in using the living language as well as those who will later specialize in Biblical Hebrew.

### ITALIAN

#### Lower Division Courses

- 101, 102. **First Year Italian.** (4:4:1) F.S. (Offered 1963-64 and alternate years) (G-HA m) Gibson, Watkins  
Special attention to accurate pronunciation for benefit of students of music and art for whom Italian has special interest and value. Grammar and graded reading.
201. **Second Year Italian.** (4:4:0) F. (Offered 1962-63 and alternate years) Pre-requisite: Italian 102 or two units of Italian in high school. Gibson, Watkins

#### Upper Division Courses

301. **Selected Readings.** (4:4:0) S. (Offered 1962-63 and alternate years) Gibson  
Extensive reading of intermediate texts.
- 431, 432. **Masterpieces of Italian Literature.** (3:3:0) F.S. Home Study also. (G-HA) Prerequisite: Italian 301 or consent of instructor. Gibson, Watkins
- 490, 491. **Individual Study in Italian.** (1-3:Arr.:Arr.) F.S. Gibson, Watkins  
Assignments made to fit the individual needs of the advanced student.

### JAPANESE

#### Lower Division Courses

- 101, 102. **First Year Japanese.** (4:4:1) F.S. (G-HA m) Staff  
Constant study of the writing systems. Fundamentals of grammar and the building of a substantial vocabulary. Easy conversation and composition throughout.
201. **Second Year Japanese.** (3:3:0) F. (m) Prerequisite: Japanese 102 or consent of instructor. Staff  
Reading and conversation.

#### Upper Division Courses

301. **Selected Readings.** (4:4:0) S. (m) Prerequisite: Japanese 201 or equivalent. Staff
- 490, 491. **Individual Study in Japanese.** (1-3:Arr.:Arr.) F.S.Su. Staff  
Assignments made to fit the individual needs of the advanced student.

**NORWEGIAN****Lower Division Courses**

- 101. 102. First Year Norwegian.** (4:4:2) F.S. (G-HA) Staff  
 Designed for those who have had no Norwegian.

**PORTUGUESE**

The requirement for a major is 24 hours of upper division courses which must include the following: Portuguese 321, 322, 431, 432, 490, 491 (or equivalents).

The requirement for a teaching minor is 14 hours of upper division courses, which must include Portuguese 321, 322, 431, 432.

**Lower Division Courses**

- 101, 102. First Year Portuguese.** (4:4:1) F.S. (G-HA m) de Jong  
 A beginning course. Pronunciation, conversation, reading, and fundamentals of grammar. Special attention to Portuguese as the language of Brazil.
- 201. Second Year Portuguese.** (4:4:0) F. Home Study also. (m) Prerequisite: Portuguese 102 or three units of Portuguese in high school. Staff

**Upper Division Courses**

- 301. Selected Readings.** (4:4:0) S. (m) Prerequisite: Portuguese 201. Staff  
 Extensive readings of intermediate edited texts.
- 321, 322. Portuguese Composition and Conversation.** (3:3:0) F.S. Prerequisites: Portuguese 301; 16 hours of Portuguese or the equivalent. de Jong
- 431, 432. Masterpieces of Brazilian and Portuguese Literature.** (3:3:0) F.S. (G-HA) Prerequisite: Portuguese 301 or consent of instructor. de Jong
- 490, 491. Individual Study in Portuguese.** (1-3:Arr.:Arr.) F.S.Su. de Jong  
 Assignments are made to fit the individual needs of the advanced student.

**Graduate Courses**

- 620, 621. Portuguese Composition and Conversation.** (3:3:0) F.S. de Jong
- 641. Introduction to Portuguese Literature.** (3:3:0) F.S. (G-HA) de Jong
- 642. Contemporary Portuguese Literature.** (3:3:0) S. de Jong
- 650. Introduction to Brazilian Literature.** (3:3:0) F.S. de Jong
- 651. Contemporary Brazilian Literature.** (3:3:0) S. de Jong
- 690. Directed Readings.** (1-2:0: Arr.) F.S.Su. Staff
- 692. Seminar in Philology.** (2:2:0) F.S. de Jong
- 694. Seminar in Literature.** (1-2:1-2:0) F.S. Staff
- 699. Thesis for Master's Degree.** (1-4:1-4:0) F.S. Staff

**RUSSIAN****Lower Division Courses**

- 101, 102. First Year Russian Grammar and Composition.** (4:4:4) F.S.Su. (G-HA m) Gubler, Staff

- 201, 203. Second Year Russian: Conversation and Composition.** (4:4:1) F.S.Su. (m) Prerequisites: Russian 101 and 102 or equivalent. Gubler, Staff  
Designed for those who have had Russian. Pronunciation, conversation. To be taken concurrently with 202 and 204.
- 202, 204. Second Year Russian: Reading and Composition.** (4:4:1) F.S.Su. (m) Prerequisites: Russian 101, 102. Gubler, Staff  
Readings and composition. To be taken concurrently with Russian 201 and 203.
- 321, 322. Russian Composition and Conversation.** (3:3:0) F.S. Prerequisite: Russian 204 or equivalent. Gubler, Staff
- 385, 386. Scientific Russian.** (2:2:0) F.S. Prerequisites: Russian 101, 102 or equivalent. Gubler, Staff
- 441, 442. Survey of Russian Literature and Culture of the Nineteenth Century.** (3:3:0) F.S. (G-HA) Prerequisite: Russian 322 or equivalent. Gubler, Polevoy
- 451, 452. Survey of Russian Literature and Culture of the Twentieth Century.** (3:3:0) F.S. Prerequisite: Russian 322. Gubler, Polevoy
- 490, 491. Seminar in Russian.** (1-2:Arr.:Arr.) F.S.Su. Gubler, Polevoy  
Assignments made to fit the needs of the advanced student.

### SPANISH

The requirement for a major is 24 hours of upper division courses which must include Spanish 321, 322, 441, 442, 451, 452. The additional six hours are to be taken from other departmental offerings or from among the following highly recommended courses, with the approval of the major adviser: Linguistics 325; History 334, 351, 352, 353; Archaeology 440, 480; English 550; Philosophy 380, 580, 581.

The requirement for a teaching minor is 14 hours of upper division courses as follows: Spanish 321, 322, 441, 442, 451, 452. A non-teaching minor is 16 hours of one foreign language.

#### Lower Division Courses

- 101, 102. First Year Spanish.** (4:4:4) F.S.Su. (G-HA m) Staff  
An audio-lingual approach emphasizing pattern practice and common grammatical structures.
- 111, 112, 113, 114. Intensive Conversational Spanish.** (4:24:12) F.S.Su. (G-HA) Wilkins, Staff  
Intensive conversational Spanish. Memorization of dialogues. Spanish patterns of grammar and idiom with native informant. Available only through Missionary Language Institute.
- 201. Intermediate Spanish Reading and Conversation.** (4:4:1) F.S.Su. Home Study also. (m) Prerequisite: Spanish 102 or three units of high school Spanish or consent of instructor. Staff

#### Upper Division Courses

- 301. Selected Readings.** (4:4:0) F.S.Su. Home Study also. (m) Prerequisite: Spanish 201 or consent of instructor. Staff
- 321, 322. Spanish Composition and Conversation.** (3:3:0) F.S.Su. Home Study also. Prerequisite: Spanish 301 or equivalent. Staff
- 351. Hispanic Civilizations.** (2:2:0) F.S.Su. (G-HA) Valentine, Wilkins  
Restricted to persons on residence tour.

377. **Secondary Teaching Procedures.** (3:3:1) F.S.Su. Prerequisites: Instruction 301 and Spanish 322 or equivalent.  
Skills mastery, hearing, speaking, reading, writing, and identification of teacher-pupil activities required for conceptual learning. Lectures, demonstrations and application of linguistic techniques to practical classroom requirements.
441. **Survey of Spanish Literature and Culture.** (3:3:0) F.S. (G-HA) Prerequisite: Spanish 301 or consent of instructor. Taylor
451. **Survey of Spanish-American Literature and Culture.** (3:3:0) F.S. (G-HA) Prerequisite: Spanish 301 or consent of instructor. Hansen, Valentine, Wilkins
454. **Spanish-American Novel.** (3:3:0) F.S. (G-HA) Prerequisite: Spanish 301 or consent of instructor. Hansen, Valentine, Wilkins
470. **The Narrative of the Golden Age.** (3:3:0) F.S. (G-HA) Prerequisite: Spanish 301 or consent of instructor. Hansen, Taylor

#### Advanced Undergraduate or Graduate Courses

521. **Introduction to Romance Philology.** (2:2:0) F. Clark
522. **History of the Spanish Language.** (2:2:0) S. Gibson
552. **Spanish-American Short Story.** (2:2:0) F.S. Valentine, Wilkins
556. **Spanish-American Poetry.** (2:2:0) F.S. Valentine, Wilkins
580. **Nineteenth Century Drama and Poetry.** (3:3:0) F.S. Gibson, Taylor
581. **Nineteenth Century Novel.** (3:3:0) F.S. Gibson, Hansen, Taylor
584. **Generation of '98.** (3:3:0) F.S. Anderson, Taylor
585. **Twentieth Century Drama.** (3:3:0) F.S. Taylor

#### Graduate Courses

653. **Spanish-American Drama.** (2:2:0) F.S. Wilkins
654. **Mexican Novel.** (2:2:0) F.S. Hansen, Valentine, Wilkins
655. **South American Novel.** (2:2:0) F.S. Hansen, Valentine, Wilkins
656. **The Modernista Movement.** (2:2:0) S. Valentine, Wilkins
657. **Hispanic American Essay.** (2:2:0) F. Valentine, Wilkins
660. **Spanish Medieval Literature.** (2:2:0) S. Taylor
- 670, 671. **Golden Age Literature.** (3:3:0) F.S. Gibson, Taylor
- 685, 686. **Twentieth Century Literature.** (2:2:0) F.S. Taylor
- 690, 691. **Directed Readings.** (2:0:Arr.) F.S. Staff  
Individual study on a graduate level.
692. **Seminar in Philology.** (2:2:0) Staff
- 694-698. **Seminar in Literature.** (2:2:0) F.S.Su. Staff
699. **Thesis for Master's Degree.** (Arr.) F.S.Su. Staff

# CLASSICAL LANGUAGES

## LATIN

The requirement for a major is 24 hours of upper division courses which must include Latin 441, 442, and 12 hours of electives to be selected from 301, 315, 316, 321, 322, 377, 431, 432, 490, 491.

The requirement for a teaching minor is 14 hours of upper division courses including Latin 441, 442, and 4 hours of electives from 301, 315, 316, 321, 322, 377, 431, 432, 490, 491.

### Lower Division Courses

- 101, 102. First Year Latin.** (4:4:0) F.S.Su. (G-HA m) Clark, Staff  
Designed for those who have not had Latin. Mastery of pronunciation, declensions, and conjugations. Correlation of Latin originals with English derivatives. Graded reading. Characteristics of Roman civilization.
- 111, 112. Beginning Latin—Accelerated.** (4:4:0) F.S. Taysom
- 201. Second Year Latin.** (4:4:0) F.Su. Home Study also. (m) Prerequisite: Latin 102 or three units of Latin in high school. Clark, Staff  
Readings from Caesar, Livy, etc., with a review and continuation of grammar.

### Upper Division Courses

- 301. Selected Readings.** (4:4:0) S.Su. Home Study also. (m) Prerequisite: Latin 201. Clark, Staff
- 315. Pre-Legal Latin.** (2:2:0) F. Prerequisite: consent of instructor. Clark, Staff  
Recommended for pre-legal students.
- 316. Pre-Medical Latin and Greek.** (3:2:0) S. Prerequisite: consent of instructor. Clark, Staff
- 321, 322. Latin Reading and Composition.** (3:3:0) F.S. Prerequisite: Latin 301 or 112 or equivalent. Taysom
- 377. Secondary Teaching Procedures.** (3:3:1) F.S.Su. Prerequisites: Instruction 301 and Latin 322 or equivalent. Staff  
Skills mastery, hearing, speaking, reading, writing and identification of teacher-pupil activities required for conceptual learning. Lectures, demonstrations, and application of linguistic techniques to practical classroom requirements.
- 431, 432. Masterpieces of Latin Literatures.** (3:3:0) F.S. Prerequisite: Latin 301 or 112 or equivalent or consent of instructor. Clark
- 441, 442. Survey of Latin Literature and Culture.** (3:3:0) F.S. (G-HA) Clark, Staff
- 490, 491. Individual Study.** (1-3:Arr.:Arr.) F.S.Su. Clark, Staff

### Advanced Undergraduate or Graduate Courses

- 520. Advanced Composition and Grammar.** (2:2:0) S. Prerequisite: Latin 322 or equivalent. Clark, Staff
- 561, 562. Readings in Medieval Latin.** (2:2:0) F.S. Prerequisite: Latin 301 or 112 or equivalent. Clark, Staff

### Graduate Courses

- 661. Cicero.** (3:3:0) F. Clark

671. **Virgil.** (3:3:0) S. Clark, Staff
675. **The Latin Poets.** (3:3:0) F. Clark, Staff  
Horace, Ovid, Lucretius, etc.
679. **The Latin Dramatists.** (3:3:0) S. Clark, Staff  
Plautus, Terence, etc.
- 681, 682. **The Latin Fathers.** (3:3:0) F.S. Prerequisite: consent of instructor.  
Nibley
- 690, 691. **Directed Readings.** (1:2:Arr.:Arr.) F.S.Su. Clark, Staff  
Individual study on a graduate level.
- 692, 693. **Seminar in Philology.** (2:2:0) F.S. Clark, Staff
- 694-698. **Seminar in Literature.** (2:2:0) F.S. Clark, Staff
699. **Thesis for Master's Degree.** (Arr.) F.S.Su. Staff

### GREEK

For major and minor requirements consult the department chairman.

- 101, 102. **Elementary Greek.** (4:4:0) F.S. (G-HA m) Staff
201. **Intermediate Greek Reading and Composition.** (4:4:1) F. (G-HA m) Staff
301. **Selected Readings.** (4:4:0) S. (G-HA m) Prerequisite: Greek 201 or consent of instructor. Staff

### SEMITICS

Hebrew, Arabic, Aramaic, Akkadian, Egyptian, Syriac, Ugaritic

For Semitic languages other than Arabic and Modern Hebrew see the Department of Biblical Languages section. The courses in Semitic languages carry credit in religion and fulfill the language requirements for the B.A. degree.

### LINGUISTICS

#### Upper Division Courses

325. **Introduction to Linguistics.** (2:2:0) F.S.Su. Blair  
An introduction to linguistics which includes an introduction to the scientific study of language for students in foreign languages, English, and anthropology. Includes the nature and description of language; its sounds and grammar; the historical and comparative study of language.
360. **Practical Phonetics.** (2:2:0) F.S. de Jong  
Elementary principles of speech mechanics in their relation to correct diction.
626. **Introduction to Linguistics.** (2:2:0) S. Staff

## Library Science

**Assistant**

**Professors:** Knight (chairman, 532 Library),  
Nelson.

**Instructors:** Berry, Flake, Hansen, Jenson,  
Lamson, Larsen, Nash\*, Storrs,  
Thorne.



The library science program is organized to fill the needs of school and public librarians, teachers, and students who wish to become familiar with library use, and those who wish to do advanced study in a professional library school. All courses listed will be taught one or more times during a two-year period, including summer sessions.

Candidates for a librarian's certificate in Utah must have courses 355, 363, and 366 in addition to the elementary or secondary certificate.

A minor (teaching minor) requires 14 to 16 hours of selected courses including 355, 363, 366, 370, and 585.

### Lower Division Course

111. **Use of Books and Libraries.** (1:2:0 for  $\frac{1}{2}$  term) F.S. (m) Staff  
Efficient use of library materials; card catalog; use of general reference books (bibliographies, dictionaries, encyclopedias, and indexes); and making of bibliographies.

### Upper Division Courses

355. **Classification and Cataloging.** (3:3:0) S.Su. (m) Prerequisite: ability to typewrite. Jenson  
Theory and principles of classification and cataloging of books in libraries. Practical problems and laboratory practice.
363. **Library Organization and Administration.** (2:2:0) F.Su. Home Study also. (m) Thorne  
General organization and administration in all types of libraries. Emphasis on physical facilities, objectives, and management.
366. **Book Selection.** (2:2:0) S.Su. (m) Larsen  
Principles, criteria, and practice in selection of books and other library materials.
370. **Introduction to Bibliography.** (2:2:0) F.S.Su. (m) Hansen  
Intensive study of the content and use of reference books: encyclopedias, dictionaries, indexes, yearbooks, bibliographies, atlases, and biographies. Bibliographical form stressed.

These courses also count in library science:

**Instruction 340. Children's Literature.** (2:2:0)

**Instruction 406. Teaching Materials Laboratory (Audio-Visual Aids).** (2:2:1)

**Advanced Undergraduate or Graduate Courses**

569. **Reading Guidance for Young People.** (2:2:0) S. (m) Staff  
 A critical study of the reading interests and needs of young people. Problems of the reluctant and the avid reader. Extensive examination and reading of books.
571. **Bibliography of the Sciences.** (2:2:0) Su. (m) Staff
572. **Bibliography of the Humanities.** (2:2:0) S. (m) Knight
573. **Bibliography of the Social Sciences.** (2:2:0) S. (m) Knight
585. **History of Books and Libraries.** (2:2:0) F.Su. (m) Flake

**This course also counts in library science:**

Speech 527. **Storytelling.** (2:2:0)

**Graduate Courses**

650. **Current Problems in the Technical Services.** (2:2:0) Su. (m) Staff
- 695, 696. **Readings and Research in Library Science.** (1-2:Arr.:Arr.) F.S.Su. (m) Staff

**This course also counts in library science:**

Education 605. **Development of Instructional Materials.** (2:2:1)

**Professor:** Fletcher (chairman, 289 ESC).

## Mathematics

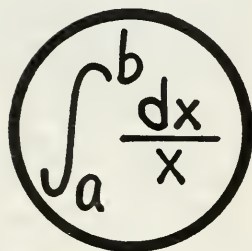
**Associate**

**Professors:** Dean, Robinson.

**Assistant**

**Professors:** Fearnley, Haupt, Larsen, Moore, Olpin.

**Instructors:** Gee, Gill, Higgins, Hilliam, Hone, Wickes.



The mathematics curriculum at Brigham Young University has been designed to satisfy the needs of (1) those students who plan a career as professional mathematicians and thus desire to major in mathematics, (2) students in engineering and the sciences whose work requires a broad mathematical background, (3) prospective teachers of mathematics, (4) students in the technical institute programs of the University, (5) students in the University Honors Program, and (6) students of the liberal arts who desire mathematics to be a part of their study of the world of ideas.

Students in groups two through five should refer to the appropriate section of this catalog for a detailed description of the mathematics requirements of their curricula. Liberal arts students will find mathematics 300, 301, 302, and 305 of interest to them.

All entering freshmen who intend to take mathematics must take the mathematics placement test before, or at the time of registration. Students will be placed in Math 101, 111, or 112, depending on the results of this test. A high school graduate planning to major in the physical or engineering sciences should have had  $1\frac{1}{2}$  units of high school algebra and one unit of plane geometry. Trigonometry and solid geometry are also recommended. With these he should be able to qualify for enrollment in Math 111 or 112. Those who have not had two courses of high school algebra or who may be weak in mathematics should take Math 101 in summer school or by correspondence before entering B.Y.U. Those without plane geometry should take this course by correspondence before entering.

### Requirements for Departmental Majors and Minors

The Department of Mathematics offers course work leading toward the degrees of Bachelor of Science, Bachelor of Arts, Master of Science, and Master of Arts with a major or minor in mathematics.

### Baccalaureate Degrees

**Mathematics Requirements.** An undergraduate major in mathematics is required to complete with a grade of "C" or better: Mathematics 334, 371, 372, 541, 542 plus 9 additional hours selected from Mathematics 311, 312, 332, 336, 387, 435, 485, 551, 552, and Statistics 521, 522. In addition, all majors are required to pass a written comprehensive examination which is administered by the testing service about the middle of January during the senior year.

An undergraduate minor in mathematics should complete with a grade of "C" or better a minimum of 14 hours in mathematics courses, at least 9 of which must be upper division courses selected from those listed in the preceding paragraph. Mathematics 51, 101, and 111 should **not** be counted as part of the 14 required hours.

**Language.** The student is strongly urged to achieve competence in a foreign language (German, Russian, or French) during his undergraduate career. He may do this by enrolling in a beginning course during his sophomore year and following this up with additional course work or individual readings in the language. The availability of religion courses taught in a foreign language which count both towards the fulfillment of the religion requirement and the language requirement for the B.A. degree are particularly attractive in this respect. For example, Theology 234-237, History and Philosophy of Religion 451, 452, or Bible 301, 302 (foreign language sections) are some of these. Certain courses which do double duty in fulfilling both the language requirements for the B.A. degree and general education requirements are also available upon demand in other areas of the University.

**Religion.** It is suggested that the student take advantage of the opportunity to replace a two-hour religion course during his senior year by two hours of credit for devotional assembly.

**Suggested Program.** The following program of courses is suggested to those who wish to major in mathematics.

Freshman Year			Junior Year		
	F	S		F	S
Math 112, 213* (or 111, 112) .....	5	5	Math 371, 372 .....	3	3
English .....	3	3	Math electives .....	3	3
Chemistry 105, 106 .....	4	4	Social science .....	3	2
Religion .....	2	2	Religion .....	2	2
Health 130 .....	2		Physics .....	3	3
History 170 .....		3	Electives .....	4	5
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Total Hours .....	18	18
Devotional assembly ....	$\frac{1}{2}$	$\frac{1}{2}$			
Total Hours .....	17	18	Senior Year		
Sophomore Year				F	S
	F	S	Math 541, 542 .....	3	3
Math 334, 336 or (213, 334) .....	3 or 5	3	Math electives .....	3	3
Electives .....	3 or 1	3	Literature .....	5	
Physics 211, 212 .....	4	4	Religion .....		2
Physics 213, 214 .....	1	1	Biological science .....	3	3
Language .....	4	4	Electives .....	4	7
Religion .....	2	2	Total Hours .....	18	18
Devotional assembly ....	$\frac{1}{2}$	$\frac{1}{2}$			
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$			
Total Hours .....	18	18			

\*An entering freshman who has not had the equivalent of Math 111 should complete this during the first year. This will mean that he has 5 hours less of electives in his college program.

### Graduate Degrees

Graduate students should acquaint themselves with the general requirements found in the Graduate School section of this catalog.

A student is required to present credit in a minimum of 16 semester hours upper division or advanced undergraduate courses in mathematics including 6 hours of advanced calculus, before being admitted on a degree-seeking basis in mathematics. A candidate for the Master of Science degree in mathematics is required to complete a minimum of three (full year) courses, totaling 18 semester hours in graduate mathematics and is also required to complete an acceptable thesis.

### Remedial Course

51. Plane Geometry. (0:3:0) F.S.

Staff

Equivalent to high school plane geometry. Required of students majoring

in the College of Physical and Engineering Sciences. This is also offered by correspondence prior to entrance as a freshman.

### Lower Division Courses

- 101. Intermediate Algebra.** (3:4:0) F.S.Su. Staff  
Equivalent to the second year of high school algebra. Those with no algebra in high school should take a correspondence course in first year algebra to make up the deficiency. Those with two years of high school algebra who place high on the placement test may take Math 111 without taking Math 101 first.
- 111. College Algebra and Trigonometry.** (5:5:0) F.S.Su. Prerequisite: Math 101. Staff  
If a student has not completed Math 101, he can enroll in this course only by passing a placement test prior to registration.
- 112, 113. Analytical Geometry and Calculus.** (5:5:0 ea.) F.S.Su. (113 m) Prerequisite Math 111 or its equivalent. Staff  
Plane and solid analytic geometry; differential and integral calculus with applications.
- 121, 122. Technical Mathematics.** (3:3:0 ea.) F.S. Prerequisite: Math 101 or equivalent. Staff  
For students in the technical institute. College algebra, trigonometry, analytical geometry, and an introduction to calculus. Emphasis on problems and practical application.
- 205. Structure of Mathematics.** (3:3:0) F.S. Staff  
For honor students only.
- 223. Technical Mathematics.** (3:3:0) F.S. Prerequisite: Math 112. Staff  
A continuation of Math 122. Analytical geometry and calculus for the technical institute.

### Upper Division Courses

- 300. History of Mathematics.** (3:3:0) S. Prerequisite: Math 112. Staff  
The development of mathematics with emphasis on the underlying principles and motivations. Primarily for prospective teachers.
- 301. Foundations of Algebra.** (3:3:0) F. Prerequisite: Math 111. Staff  
Sets, logic, basic number systems. Primarily for prospective teachers.
- 302. Foundations of Geometry.** (3:3:0) S. Prerequisite: Math 112. Staff  
A critical analysis of the logical structure and content of Euclidean geometry, based upon Birkoff's metric postulates; and an introduction to Non-Euclidean geometries. Primarily for prospective secondary teachers.
- 305. Basic Concepts of Mathematics.** (3:3:0) F.S.Su. Staff  
For elementary school teachers only. Designed to develop an understanding of the basic structure of mathematics. This course is a prerequisite for Instruction 322.
- 311. Digital Computers.** (3:1:6) F. (m) Prerequisite: Math 112. Staff  
Computer logic, flow diagram, coding techniques, solution of problems using a modern digital computer as a laboratory machine.
- 312. Numerical Analysis.** (3:3:0) S. (m) Prerequisite: Math 334. Staff  
Numerical solutions of algebraic, difference, differential, and integral equations.
- 313. Advanced Engineering Mathematics.** (3:3:0) F.S.Su. Prerequisite: Math 213. Staff  
Determinants and matrices, numerical analysis, vector analysis. (Not open to students with credit in Math 315)
- 314. Vector Analysis.** (3:3:0) F.S. Prerequisite: Math 213. Staff  
Vector algebra, vector differential operators, integral theorems, introduction to potential theory.

- 332. Introduction to Complex Analysis.** (3:3:0) F. (m) Prerequisite: Math 213. Staff  
Complex algebra, analytic functions, integration in the complex plane, infinite series, theory of residues, conformal mapping.
- 334. Introduction to Ordinary Differential Equations.** (3:3:0) F.S.Su. (m) Pre-requisite: Math 213. Staff  
An introductory course in the theory of ordinary differential equations with applications, including the use of Laplace transformations.
- 336. Introduction to Partial Differential Equations.** (3:3:0) F.S. (m) Prerequisite: Math 334. Staff  
An introduction to the theory of partial differential equations, Fourier series, Bessel functions, Legendre polynomials with applications.
- 371. Introduction to Modern Algebra.** (3:3:0) F. (m) Prerequisite: Math 112. Staff  
An introduction to modern algebra, including the study of groups, rings, and fields.
- 372. Introduction to Linear Algebra.** (3:3:0) S. (m) Prerequisite: Math 112. Staff  
An introduction to linear algebra, including the study of linear spaces, linear transformations, and matrices.
- 387. Theory of Numbers.** (3:3:0) F. (m) Prerequisite: Math 111. Staff  
Foundations of number theory, congruences, residues, reciprocity law, Diophantine equations.
- 435. Intermediate Differential Equations.** (3:3:0) S. (m) Prerequisite: Math 334. Staff  
Intermediate theory of ordinary differential equations including solutions of special types of equations, existence theorems, series solutions, hypergeometric functions.
- 485. Matrix Analysis.** (3:3:0) Arr. (m) Prerequisite: Math 213. Staff  
An introduction to matrix analysis, including the study of characteristic values, canonical forms, and functions of matrices, with applications.

#### Advanced Undergraduate or Graduate Courses

- 541, 542. Advanced Calculus.** (3:3:0 ea.) F.S. (m) Prerequisite: Math 334. Staff
- 551, 552. Topology.** (3:3:0 ea.) F.S. (m) Prerequisite: concurrent registration in Math 541. Staff

These courses also count in mathematics:

- Statistics 521, 522. Theory of Statistics.** (3:3:0)
- Statistics 541. Advanced Probability.** (2:2:0)

#### Graduate Courses

- 617, 618. Mathematical Physics.** (3:3:0 ea.) F.S. Prerequisite: Math 336; recommended: Math 542. Staff
- 631, 632. Complex Analysis.** (3:3:0 ea.) Prerequisite: Math 334; recommended: Math 542. Staff
- 641, 642. Functions of a Real Variable.** (3:3:0 ea.) F.S. Prerequisite: Math 213; recommended: Math 542. Staff
- 647, 648. Partial Differential Equations.** (3:3:0 ea.) Arr. Prerequisite: Math 336; recommended: Math 542. Staff
- 671, 672. Modern Algebra.** (3:3:0 ea.) F.S. Prerequisite: Math 371. Staff
- 681, 682. Linear Algebra.** (3:3:0 ea.) F.S. Prerequisite: Math 372. Staff
- 695. Readings in Mathematics.** (1-2:1-2:0) F.S. Staff
- 699. Thesis for Master's Degree.** (1-6:Arr.:Arr.) F.S. Staff  
Thesis in progress. No credit.

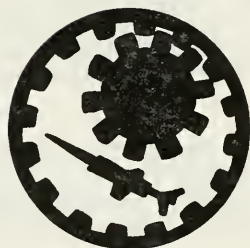
**Professors:** Baxter, Simonsen.

**Associate Professor:** Ulrich.

**Assistant Professors:** Cannon (chairman, 273 ELB),  
Beebe\*, Gardner, Wille.

**Instructors:** Free, Warner.

## Mechanical Engineering Science



The Mechanical Engineering Department offers a professional program leading to the degree of Bachelor of Engineering Science in mechanical engineering. The curriculum is fully accredited by the Engineers Council for Professional Development. Advanced classroom and laboratory course work is offered in the areas of heat transfer, fluid mechanics, thermodynamics, automatic control, dynamics, kinematics, stress analysis, manufacturing processes and measurement techniques. These courses coupled with prescribed ones from other departments provide the necessary background for work in such fields as air conditioning, internal combustion engines, jet and rocket propulsion, fluid machinery, creative machine design, aircraft design and industrial manufacturing. Students are allowed some freedom in their last undergraduate year to select restricted electives in the area of most interest to them.

Pre-professional training at B.Y.U. places emphasis on mathematics, physics, and chemistry. The courses in the professional curriculum are therefore taught on a rigorous scientific level. The student is also provided with a well balanced program of social studies, religion, biological science, and humanities.

The extensive background of the faculty combined with modern laboratories and precision scientific equipment will prove valuable to those who wish to undertake special projects in their undergraduate work or research topics in their graduate work. Qualified third-year professional students have opportunity to gain experience by assisting graduate students and faculty on industrial research projects underway in the department. Seminar work and participation in technical meetings sponsored by student organizations provide a rich background for a career in mechanical engineering. Professional opportunities for mechanical engineering graduates exist in research, development, design, sales engineering, teaching, and business management.

Work leading to graduate degrees is offered by the department. Students interested should consult the graduate catalog.

### Entrance Requirements

All students are required to meet the entrance requirements of the University as outlined in preceding pages of this catalog. Requirements for entrance into the pre-professional curriculum are specified in the College of Physical and Engineering Sciences section. After a student satisfactorily completes this work and submits an application to the department chairman, he will be admitted to the three year professional course in mechanical engineering.

### Grade Requirements

Grade requirements for entrance into the professional curriculum are explained in the College of Physical and Engineering Sciences section.

In addition to the regular University academic requirement, a grade of "C" or higher is required in all prescribed courses taken after being admitted to the

professional curriculum. If a grade lower than "C" is received in any required course, the student must repeat the course unless he petitions the department faculty and is excused. A "D" grade in a course which is a prerequisite for another course may be considered to fill the prerequisite requirement so that the student may continue in the course sequence. This in no way rescinds the restriction explained above regarding the removal of a grade lower than "C." Deviations from this rule may be made by the department faculty, upon petition, when deviations appear justified. In order to receive a Bachelor of Science degree in mechanical engineering it is necessary to have a 2.0 minimum average in all course work at the University.

### General Education Group Requirements

Engineering science students are subject to all of the general education requirements listed in the Student Academic Services section of this catalog, except that the biological science requirement may be reduced to four semester hours instead of the six semester hours specified. All four hours may be obtained in a single course if desired.

### Requirements for Major

To obtain a degree the student must complete the sequence of courses listed below, and must work at least one summer during his last three years of residence in an industry related to the field of mechanical engineering. The student should consult in advance with the department chairman regarding his summer employment.

The following abbreviations are used in the description below: Ch.E. for chemical engineering; C.E. for civil engineering; E.E. for electrical engineering; and M.E. for mechanical engineering.

Engineering students may register for 18 hours exclusive of physical education and forum in any one semester without obtaining special permission.

Students enrolled in air science should contact that department since some extra work will normally be required to graduate in the time outlined in the following schedule.

### Normal Sequence of Courses for Majors

#### Pre-Engineering Program

See College of Physical and Engineering Sciences section of this catalog.

#### Professional School of Mechanical Engineering

First Year Professional (3rd Year)							
	F	S		M.E. 433 .....		3	
				M.E. 422 .....	2		
Math 313, 336 .....	3	3		C.E. 401 .....	2		
M.E. 321, 322 .....	3	3		Religion and groups .....	2	3	
C.E. 303, 304 .....	3	3		English 316 .....	2		
Ch.E. 378 .....		3		Total Hours .....	18	17	
E.E. 301, 302 .....	4	4					
Religion .....	3			Third Year Professional (5th Year)			
M.E. 331, 361 .....	2	2			F	S	
Total Hours .....	18	18		M.E. 535 .....	3		
Second Year Professional (4th Year)				M.E. 590 .....	1		
	F	S		M.E. 591 .....		1	
M.E. 412, 413 .....	4	3		C.E. 571 .....		3	
M.E. 431, 432 .....	4	5		Group electives .....	6	4	
M.E. 461 .....	2			Restricted electives* .....	6	9	
M.E. 441 .....		3		Total Hours .....	16	17	

\*The restricted electives are to be chosen from the electives offered by the Mechanical Engineering Science Department or, by petition, from subjects offered in other departments.

## Lower Division Course

- 100. Engineering Orientation.** (1:1:0) F.S. Staff  
 Introduction to the fields and profession of engineering. Required of all freshman engineering students.

## Upper Division Courses

- 310. Elements of Fluid Mechanics.** (3:3:0) F.S. Prerequisites: Math 214 or 334; C.E. 302; M.E. 320. Staff  
 A survey course in fluid mechanics for electrical engineers.
- 320. Elements of Thermodynamics.** (3:3:0) F.S. Prerequisites: Math 214 or 334; Physics 213. Staff  
 First and second laws; properties of systems; thermodynamics of gases and vapors; applications to thermodynamic cycles. Designed for students not majoring in mechanical engineering.
- 321, 322. Thermodynamics.** (3:3:0) F.S. Prerequisites: Math 214 or 334; Physics 213. Staff  
 First law and applications, thermodynamics systems, properties of gases, liquids, and vapors. Second law and applications, entropy; properties of gaseous mixtures, fluid flow; gas and vapor cycles and applications to machinery; refrigeration; compression of gases; air-water vapor mixtures.
- 331. Manufacturing Processes.** (1:1:0) S. Staff  
 A survey of general manufacturing processes, including smelting, refining, casting, cutting, machining, welding, and joining of engineering materials.
- 361. Mechanical Engineering Instrumentation.** (2:1:3) S. Prerequisite: completion of or concurrent registration in M.E. 321. Staff  
 Measurements of physical properties and quantities as they apply to mechanical engineering; special emphasis is given to primary measurements and instrumentation.
- 412. Fluid Mechanics I.** (3:3:0) F. Prerequisites: Math 214 or 334; C.E. 304; M.E. 320 or 322. Staff  
 Physical properties of fluids; fluid statics; viscous flow; dimensional analysis; incompressible flow; compressible flow; fluid meters; lift and drag; dynamic similarity; momentum; potential theory; fluid machinery.
- 413. Fluid Mechanics II.** (3:3:0) S. Prerequisites: Math 316 or 336; M.E. 412.  
 Compressible flow; shock affects; Fanno and Rayleigh lines; generalized one dimensional flow.
- 422. Combustion.** (2:2:0) S. Prerequisite: M.E. 322. Staff  
 Properties of fuels; characteristics of air-fuel mixtures; combustion characteristics.
- 431, 432. Machine Design I and II.** (4:2:6) F. (5:3:6) S. Prerequisites: C.E. 303, 304.  
 Velocities and accelerations in machine parts; rolling contact; cams, gearing, flexible connectors, theory and design of machine elements; proportioning of machine parts according to the laws of mechanics and engineering materials.
- 433. Advanced Mechanics of Materials.** (3:3:0) F. Prerequisites: C.E. 303, 401. Staff  
 Concepts of dynamic failure mechanisms in engineering materials. The origin and significance of residual stresses resulting from manufacturing processes. Relations between residual stresses and fatigue failure phenomenon. Design of high strength, light weight structures which are subjected to dynamic loading conditions.

- 441. Heat Transfer.** (3:3:0) S. Prerequisites: M.E. 322, 412; Math 316 or 336. Staff  
 Fundamental principles of heat transfer by conduction, convection, and radiation.
- 461. Heat Power Laboratory.** (2:1:3) F. Prerequisites: M.E. 322, 361. Staff  
 Engineering analysis applied to thermodynamic cycles and processes. Analytical prediction of performance and comparison with experimental results.
- 472. Heating, Ventilating, and Air Conditioning\*.** (2:2:0) Arr. Prerequisite: M. E. 322. Staff  
 Heating and cooling for comfort. Design of warm air, hot water, and steam heating systems for residence and commercial buildings.

### Advanced Undergraduate or Graduate Courses

- 521. Advanced Thermodynamics\*.** (3:3:0) Arr. Prerequisites: M.E. 322; Math 316 or 336. Staff  
 Extended treatment of the fundamentals of thermodynamics including transient conditions, equilibrium, combustion.
- 531. Principles of Automatic Control\*.** (3:3:0) Arr. Prerequisites: M.E. 412; E.E. 302; Math 316 or 331 and 334.  
 Transfer functions applied to mechanical, hydraulic, pneumatic, and electrical components, and their combination. Block diagrams, Nyquist and Routh's Criteria. Bode's and Root Locus Plots, Integral and error rate compensation. Non-linear systems.
- 532. Special Topics in Machine Design\*.** (3:3:0) Arr. Staff  
 Selected topics in the behavior of engineering materials and advanced mechanics of materials as applied to the design of machine members.
- 533. Stress Analysis in Machine Components.** (3:3:0) Arr. Prerequisites: C.E. 303, Math 316 or 336. Staff  
 Statically indeterminate structures, columns, tension and shear fields, shell analysis, curved beams and rings, buckling of columns and compression panels, torsion analysis of irregular shapes, and combined loads and stresses. Particular emphasis is given to aircraft and missile flight vehicles and ground handling equipment.
- 535. Mechanical Vibrations.** (3:3:0) F. Prerequisites: Math 316 or 313, 336; C.E. 302. Staff  
 Fundamentals of simple vibrating systems with applications.
- 541. Advanced Heat Transmission\*.** (3:3:0) Arr. Prerequisite: M.E. 441. Staff  
 Extension of M.E. 441 to include numerical and approximate methods of solution, transient problems, and solution of problems by analogy methods.
- 581. Internal Combustion Engines\*.** (3:2:3) Arr. Prerequisite: M.E. 422. Staff  
 Basic principles; theoretical and actual cycles; performance characteristics with experimental laboratory analysis.
- 583. Principles of Turbomachinery\*.** (2:2:0) Arr. Prerequisites: M.E. 322, 413. Staff  
 Analysis and design of all types of turbomachinery.
- 585. Jet Propulsion Power Plants\*.** (3:3:0) Arr. Prerequisite: M.E. 422. Staff  
 Analysis of power plants, including performance of prime movers, economics, and matching of components.
- 590. Mechanical Engineering Problems.** (1:0:3) F. Prerequisite: fifth year standing. Staff
- 591, 592. Seminar.** (1:1:0 ea.) F. Prerequisite: fifth year standing. Staff  
 Student and faculty presentation of topics of special and current interest.

- 595, 596. **Special Problems\***. (Arr.) Arr. Prerequisite: consent of department chairman. Staff
597. **Undergraduate Research\***. (Arr.) Arr. Prerequisite: consent of department chairman. Staff

### Graduate Courses

611. **Fluid Dynamics\***. (3:3:0) Arr. Prerequisites: M.E. 413; Math 316 or 336. Staff  
 Steady and unsteady flow of compressible and incompressible fluids; principles of operation of fluid dynamical machinery.
612. **Gas Dynamics**. (3:Arr.:Arr.) Arr. Staff
- 621, 622. **Thermodynamics Theory I, II\***. (3:Arr.:Arr. ea.) Arr. Staff
635. **Advanced Vibration Analysis\***. (3:3:0) Arr. Prerequisite: M.E. 535. Staff  
 Vibration characteristics of systems with several degrees of freedom; elastic bodies; systems with transient vibrations, and simple non-linear systems.
636. **Advanced Vibrations II\***. (3:Arr.:Arr.) Arr. Staff
- 641, 642. **Heat Transfer Theory I, II\***. (3:Arr.:Arr.) Arr. Staff
- 661, 662. **Elasticity in Engineering\***. (3:Arr.:Arr. ea.) Arr. Staff
697. **Master's Candidate Research\***. (Arr.) Arr. Staff
699. **Thesis for Master's Degree\***. (1-6:Arr.:Arr.) Arr. Staff

\*Electives offered upon approval of department chairman. Frequency based on demand.

## Music



**Professors:** Gates (chairman, 255 C), de Jong, Earl, Halliday, Jepperson-Madsen (emeritus), Madsen (emeritus), Sardoni.

**Associate Professors:** Goodman, H. Laycock.

**Assistant Professors:** Ballou, Cannon, Cundick, Keeler, R. Laycock, Nibley, Nordgren, Terry, Wakefield, Woodward.

**Instructors:** Bos, Bradshaw, Curtis, Groesbeck, McMurdie, Weinzing.

The Music Department presupposes that a student who wishes to major in music will have had previous training in music before entering the University. In order to determine the degree of attainment in basic musical skills, each entering freshman and transfer student who desires to major in music will be given the Music Department entrance test which is given each semester during the orientation period.

Anyone who majors or minors in music should expect to attend the lyceums as well as Music Department recitals and concerts. Therefore, majors must attend ninety-six such events during their four years of study. (Minors need attend only forty-eight such events.)

### Music Majors

A baccalaureate degree in music can be taken with a major in applied music, music theory, or music education (secondary). The curriculum for a major in applied music, music theory, or music education leads to the Bachelor of Arts degree.

### Music Minors

Those who wish to minor in music are required to take Music 103, 191, 193, 2 hours of ensemble, and 6 hours of electives in music.

### Music Education Minors

#### Elementary.

Prospective elementary school teachers who desire a minor in music are required to take Music 101, 191, 193, 201, 202, 4 hours of ensemble (band, orchestra, or chorus), and 3 hours of class and/or private piano.

#### Secondary:

**A—Instrumental:** Prospective secondary school teachers who desire a teaching minor in instrumental music are required to take the following courses: Music 101, 191, 193, 201, 202; 4 hours of band or orchestra; 6 hours selected from the following: Music 160p, 360p (on instrumental specialty), 368, 370, 372, 375.

**B—Vocal:** Prospective secondary school teachers who desire a teaching minor in vocal music are required to take the following courses: Music 101, 191, 193, 201, 202, 374; 4 hours of group and/or private voice; and 4 hours of vocal ensemble.

## Degree in Applied Music

To receive a Bachelor of Arts degree with a major in applied music, a student completes the following music courses or their equivalent:

	Hours
Music 103 .....	2
Music 191, 192, 193, 194, 291, 292 .....	16
Music 202 and either Music 374 or 375 .....	4
Music 484, 485 .....	6
Music 491 .....	3
Music ensemble .....	8
Private instruction on major instrument or voice .....	16

(Keyboard majors take 2 hours of ensemble plus 262, 263, 391, and 462.)

Majors in the various fields of applied music are required to take certain special classes in addition to the above requirements:

Piano majors take Music 565.  
 Organ majors take Music 167, 468, 569.  
 Woodwind majors take Music 368.  
 Brass majors take Music 370.  
 String majors take Music 372.  
 Voice majors take Music 566, 567, 568.

Students are limited to two hours of credit per semester of applied music instruction on any one instrument. The hours to be taken in individual or group instruction may be reduced if a student, as determined by entrance examinations, has already had considerable training in these areas. At the end of each year of individual instruction the student takes an examination on his major instrument or in voice to determine his level of achievement. For the examination, each candidate submits a list of his repertoire indicating composition or studies especially prepared for the examination. Forms on which a record of the student's repertoire is kept and outlines of instrumental and vocal proficiency requirements are available at the Music Department office.

Majors in applied music (except keyboard majors—see ensemble requirements above) participate in a music ensemble each semester of their undergraduate training. Instrumental majors participate in at least one instrumental ensemble and one vocal ensemble. Voice majors sing in at least two vocal ensembles. In addition, all applied music majors must participate in a senior recital.

A major in applied music must accumulate at least sixty minutes of recital appearance time either as soloist or chamber music ensemble performer.

The following sequence of courses is recommended for majors in applied music:

Freshman Year			Sophomore Year		
	F	S		F	S
Religion .....	2	2	Religion .....	2	2
English .....	3	3	Language (1st or		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	2nd year) .....	4	4
Music 103 .....	2		Music 202 .....		2
Music 160p			Music 291, 292 .....	4	4
(on specialty) .....	2	2	Music 160p .....	2	2
Ensemble .....	1	1	Ensembles .....	1	1
Music 191, 192 .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Music 193, 194 .....	2	2	Devotional assembly ...	$\frac{1}{2}$	$\frac{1}{2}$
Music 107, 108,			Health 130 .....	2	
if needed .....	2	2			
General education .....		3	Total Hours .....	16	16
Devotional assembly ...	$\frac{1}{2}$	$\frac{1}{2}$			
Total Hours .....	17	18			

Junior Year			Senior Year		
	F	S		F	S
Religion .....	3	2	Music 491 .....		3
Language (2nd year) ....	4	4	Ensemble .....	1	1
Music 484, 485 .....	3	3	Music 360p .....	2	2
Music 374 or 375 .....	2	or 2	Electives (must		
Ensemble .....	1	1	include the special		
Music 360p .....	2	2	music classes) .....	1-2	1-2
Electives (must include			General education .....	11-12	6
the special music			Electives .....		1-2
classes) .....		1-2			
Devotional assembly ....	$\frac{1}{2}$	$\frac{1}{2}$	Total Hours .....	15-17	14-16
General education .....	2				
Total Hours .....	15 $\frac{1}{2}$ -17 $\frac{1}{2}$	13 $\frac{1}{2}$ -16 $\frac{1}{2}$			

### Degree in Music Theory

For a Bachelor of Arts degree with a major in music theory, a student is required to complete the following music courses or their equivalents:

	Hours
Music 191, 192, 193, 194, 291, 292, 391, 491, 571, 572 .....	28
Music 202 and 374 or 375 .....	4
Music 484, 485 .....	6
Music 160p or 360p (functional piano, pass sophomore proficiency standards) .....	4
Ensemble .....	4
Music 581 or 587 .....	3
Individual instruction on specialty .....	4
Music 349 or 549 (Collegium Musicum) .....	2-3

The hours to be taken in individual or group instruction may be reduced if a student, as determined by entrance examinations, has already had considerable training in these areas. At the end of each year of individual instruction the student takes an examination on his major instrument or in voice to determine his level of achievement. For the examination, each candidate submits a list of his repertoire indicating compositions or studies especially prepared for the examination. Forms on which a record of the student's repertoire is kept and outlines of instrumental and vocal proficiency requirements are available at the Music Department office.

Majors in music theory participate in musical ensembles a minimum of four semesters of undergraduate training. The student performs in at least two ensembles. A student whose specialty is a band or orchestral instrument takes two hours of instrumental ensemble and two hours of choral ensemble. A student whose specialty is voice sings in at least two vocal ensembles.

The ability to play the piano is an indispensable tool for music theory majors; consequently, every major in music theory must pass a piano proficiency examination (second year standards) during the first semester of residence or take group or individual piano instruction until he passes the examination.

The following sequence of courses is recommended for majors in music theory:

Freshman Year		F	S
Religion .....	2	2	
Devotional assembly ....	$\frac{1}{2}$	$\frac{1}{2}$	
English .....	3	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	
Music 160p (on specialty) .....	2	2	
Music 191, 192 .....	2	2	
Music 193, 194 .....	2	2	
Ensembles .....	1	1	
Music 103 .....	2		
General education .....		3	
Music 107, 108, if needed .....	2	2	
Total Hours .....	17	18	

Sophomore Year		F	S
Religion .....	2	2	
Devotional assembly ....	$\frac{1}{2}$	$\frac{1}{2}$	
Language (1st or 2nd year) .....	4	4	
Music 291, 292 .....	4	4	
Music 202 .....		2	
Music 160p .....	2	2	
Ensembles .....	1	1	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	
Health 130 .....	2		
Total Hours .....	16	16	

Junior Year		F	S
Religion .....	3	3	
Language (2nd year) ....	4	4	
Music 391 .....	3		
Music 491 .....			3
Music 484, 485 .....	3	3	
Music 374 or 375 .....	2	or	2
General education .....			3
Devotional assembly ....	$\frac{1}{2}$		$\frac{1}{2}$
Total Hours .....	13 $\frac{1}{2}$ -15 $\frac{1}{2}$	15 $\frac{1}{2}$ -17 $\frac{1}{2}$	

Senior Year		F	S
Music 571, 572 .....	3	3	
Music 581 or 587 .....	3		
Literature (humanities) .....			2
General education .....	9		6
Electives .....			1-2
Advanced music literature .....			4
Total Hours .....	15	16-17	

### Degree in Music Education

To receive a Bachelor of Science or Bachelor of Arts degree with a composite music education major, a student is required to complete the following music courses or their equivalents:

	Hours
Music 191, 192, 193, 194, 291, 292 .....	16
Music 103, 202 .....	4
Music 363*, 364*, 367, 368, 370, 372 .....	9
Music 374, 375, 378 .....	5
Music 484, 485 .....	6
Music 237 .....	2
Ensemble .....	6
Private instruction on specialty .....	12
Total Hours .....	60

\*For students with instrumental specialties only. Those students taking voice as a specialty should take Music 566 and 567.

(This degree requires additional professional education courses to meet teaching certification requirements. For details see the College of Education section of this catalog.)

Band instrumentalists who pursue one of the music education degrees participate at least one first semester in marching band and one second semester in varsity band, preferably on a minor instrument. Voice majors must sing in at least two contrasting types of ensembles, and string majors must perform at least four semesters with the orchestra.

For the baccalaureate degree with a composite major in music education the student pursues the following sequence of courses:

Freshman Year			Junior Year		
	F	S		F	S
Music 191, 192 .....	2	2	Music 485 .....	3	
Music 193, 194 .....	2	2	Music 160p or 360p		
Music 103 .....		2	(on specialty) .....	2	
Music 160p or 360p			Ensemble (band, orches-		
(on specialty) .....	2	2	tra, chorus) .....		1
Ensemble (band, orches-			Music 237 .....	2	
tra, chorus) .....	1	1	Music 375 .....	2	
Music 363, 364 .....	1	1	Music 378 .....		1
(vocal emphasis 566,			Music 367 .....		1
567) .....			Devotional assembly ...	$\frac{1}{2}$	
Music 107, 108 or 160p			Religious education .....	3	2
piano (if needed) .....	2	2	Physical science .....		3
Devotional assembly ...	$\frac{1}{2}$	$\frac{1}{2}$	Biological science .....		3
Religion .....	2	2	Social sciences		
English .....	3	3	(Psychology 111) .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Literature		
Health 130 .....	2		(humanities) .....		3
Total Hours .....	18	18	Instruction 301 .....	2	
			Music 377 .....		3
			Total Hours .....	17 $\frac{1}{2}$	17
Sophomore Year			Senior Year		
	F	S		F	S
Music 291, 292 .....	4	4	Music 160p or 360p		
Music 484 .....		3	(on specialty) .....		2
Music 202 .....	2		Ensemble (band, orches-		
Music 160p or 360p			tra, chorus) .....	1	1
(on specialty) .....	2	2	Devotional assembly ...		$\frac{1}{2}$
Ensemble (band, orches-			Religion .....	2	
tra, chorus) .....	1		Physical science .....		3
Music 368 .....	2		Biological science .....		3
Music 370 .....		2	Social science .....		2
Music 372 .....	2		Music 479 .....	8	
Music 374 .....		2	Ed. Instruction 405 .....	2	
Devotional assembly ...	$\frac{1}{2}$	$\frac{1}{2}$	Health 362 .....	2	
Religion .....		2	E.R.S. 403 .....		4
History 170 .....	3		Ed. Phil. 415 .....	2	
Humanities (3rd field) ..		2	Ed. Admin. 310 .....		2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Total Hours .....	17	17 $\frac{1}{2}$
Total Hours .....	17	18			

Students electing a Bachelor of Arts degree with a composite music education major should take the above outline plus 16 hours of foreign language.

Every music education major must pass a functional piano proficiency examination before being permitted to student teach. A proficiency examination on the student's specialty shall be required each year except during the year of student teaching. Information pertaining to outlines of instrumental and vocal proficiency requirements are available in the Music Department office.

A recommended course sequence for composite vocal or composite instrumental majors is available in the Music Department office, but will be granted only in special cases.

During the three years of study, every music education major must have appeared a minimum of 30 minutes in solo and chamber music recital.

#### Lower Division Courses

##### 101. Introduction to Music. (3:3:0) F.S.Su. (G-HA)

Bos, Cannon, Earl, Gates, Wakefield, Nibley  
Non-technical introduction to the fundamental concepts of melody, rhythm, harmony, form, etc., as a basis for understanding and enjoying

the masterpieces of our musical heritage. Open to all students without previous training in music.

102. **Music Fundamentals and Skills for Elementary Education Teachers.** (2:2:1) F.S.Su. Cannon, Earl, Nibley, Wakefield  
Grosbeck, Terry  
Practical experiences in fundamentals and skills of music. Instruction in techniques of playing simple melody and harmony instruments and writing music symbols. Required of elementary education majors.
103. **Survey of Music Literature.** (2:2:0) F.S.Su. (G-HA m)  
Cannon, Earl, Nibley, Wakefield  
An intensive study of the history of music including styles, forms and mediums from the Middle Ages to the present. Required of all music majors during the first year of study.
105. **Class Piano for Beginners in Music.** (2:2:0) F.S.Su. McMurdie, Staff  
Minimum of one hour daily practice required outside of the class. Instruction in notation of music and in keyboard technique, especially designed for prospective elementary school teachers.
106. **Group Organ Instruction.** (2:2:0) F.Su. Prerequisite: moderately advanced proficiency at the piano. Keeler  
Elements of organ manual and pedal technique, elementary repertoire, application to church service.
- 107, 108. **Group Piano Instruction.** (2:2:0 ea.) F.S. Bradshaw, Keeler, McMurdie, Wakefield  
Designed for those music majors and minors who cannot pass the piano proficiency examination. Not open to piano majors.
110. **University Chorale.** (1:0:5) F.S.Su. Weininger
116. **Male Chorus.** (1:0:5) F.S. Prerequisite: consent of director. McMurdie
119. **Women's Chorus.** (1:0:5) F.S. Prerequisite: consent of director. McMurdie
125. **A Cappella Choir.** (1:0:5) F.S. Prerequisite: consent of director. Weight
128. **Opera Workshop.** (1:0:5) F.S.Su. Prerequisite: consent of director. Earl
131. **Oratorio Choir.** (1:0:5) F.S. Prerequisite: consent of director. Halliday
134. **Basic Choral Training.** (1:0:2) F. Prerequisite: admission by audition. Staff  
The development of basic skills in choral singing and a knowledge of music fundamentals preparatory to membership in select choral groups.
135. **Varsity and Marching Band.** (1:0:5) F.S. Prerequisite: consent of director. Ballou
138. **Concert Band.** (1:0:5) F.S.Su. Prerequisite: consent of director. R. Laycock
144. **Theatre Orchestra.** (1:0:5) F.S.Su. Prerequisite: consent of director. Sardonì
147. **Symphony Orchestra.** (1:0:5) F.S.Su. Prerequisite: consent of director. Sardonì
149. **Collegium Musicum.** (1:0:3) F.S. Cannon  
Designed for advanced instrumentalists and vocalists (non-music majors as well as music majors) for credit or audit. Reading of music literature and study of performance practices, medieval to contemporary. Some reading performances for music classes and recital series.
150. **Brass, Piano, Ancient Instrument, String, Vocal, or Woodwind Ensemble.** (1:0:3) F.S.Su. Staff

- 160p. Private Instruction.** (2:1:0) F.S.Su. Staff  
Fifteen lessons per semester. Special fee.
- Brass—trumpet, cornet, French horn, trombone, baritone, tuba: Ballou, R. Laycock  
Harp: Bradley  
Harpsichord: Wakefield  
Organ: Keeler  
Percussion: R. Laycock  
Piano: Bradshaw, Cannon, Cundick, deJong, Fitzroy, Keeler, Nelson, Nibley, McMurdie, Wakefield  
Recorder: Wakefield  
Strings—violin, viola, cello, string bass: Goodman, H. Laycock, Nordgren, Sardoni  
Voice: Curtis, Earl, Halliday, Jepperson-Madsen, F. Madsen, Terry, Weight, Weinzinger, M. Woodward, R. Woodward  
Woodwinds—flute, oboe, clarinet, bassoon, saxophone: Bos, R. Laycock
- 167. Organ Problems.** (2:2:0) F.S.Su. Keeler  
Registration, accompaniment playing, and related problems.
- 170. Group Vocal Instruction.** (1:2:0) F.S.Su. Terry, Weinzinger  
Class instruction for beginners in vocal production.
- 191, 192. First Year Basic Theory.** (2:3:0 ea.) F.S. (m) Prerequisites: reading ability in music and one year of piano study or concurrent registration in Music 107, 108. Staff  
Tonal harmony, part-writing, modulation, analysis, simple forms. Must be taken with 193 and 194 respectively unless required proficiency in music skills is demonstrated.
- 193, 194. First Year Basic Music Skills.** (2:0:4 ea.) F.S. (m) Prerequisites: reading ability in music and one year of piano study, or concurrent registration in Music 97, 98. Staff  
Ear training, dictation, sight singing, keyboard. Two two-hour periods per week. Must be taken with 191 and 192 respectively unless proficiency in part-writing is demonstrated.
- 201. Baton Technique and Hymnody.** (2:2:0) F.S.Su. Staff  
Introduction to the fundamental concepts and skills of baton technique and congregational hymn singing and conducting. Open to all students.
- 202. Essentials in Conducting.** (2:2:0) F.S. Prerequisites: Music 103, 191, 192. Staff  
The fundamental course for the development of complete body skills and coordinations necessary for the conductor. Required of all music majors.
- 237. Music and Materials for Elementary Children.** (2:2:1) F.S.Su. Prerequisite: Music 102. Groesbeck, Terry  
Materials, methods, and problems pertaining to the teacher of music to elementary children. Required of all elementary education and music education majors.
- 262, 263. Piano Accompaniment.** (1:1:2 ea.) F.Su. Nibley  
Study and practical application of the basic aspects of accompanying.
- 291. Second Year Basic Theory.** (4:4:3) F. Prerequisites: Music 192, 194. Staff  
Diatonic and chromatic harmony, modulation, ear training, dictation, sight singing, keyboard, chorale, harmonization, form and analysis, elementary composition. Three-hour ear training lab per week.
- 292. Second Year Basic Theory.** (4:5:0) S. Prerequisite: Music 291. Staff  
Harmonic counterpoint, analysis of harmonic and contrapuntal forms, arranging for choral and instrumental groups, elementary composition.

- 294. Theory Review.** (2:0:5) Su. Prerequisite: Music 292 or equivalent. Staff  
Designed to help transfer and graduate students regain the necessary understanding and skills needed to do advanced work in music.

### Upper Division Courses

- 310. University Chorale.** (1:0:5) F.S.Su. Weinzinger
- 316. Male Chorus.** (1:0:5) F.S. Prerequisite: consent of director. McMurdie
- 319. Women's Chorus.** (1:0:5) F.S. Prerequisite: consent of director. McMurdie
- 325. A Cappella Choir.** (1:0:5) F.S. Prerequisite: consent of director. Weight
- 328. Opera Workshop.** (1:0:5) F.S.Su. Prerequisite: consent of director. Earl
- 331. Oratorio Choir.** (1:0:5) F.S. Prerequisite: consent of director. Halliday
- 335. Varsity and Marching Band.** (1:0:5) F.S. Prerequisite: consent of director. Ballou
- 338. Concert Band.** (1:0:5) F.S.Su. Prerequisite: consent of director. R. Laycock
- 344. Theatre Orchestra.** (1:0:5) F.S.Su. Prerequisite: consent of director. Sardoni
- 347. Symphony Orchestra.** (1:0:5) F.S.Su. Prerequisite: consent of director. Sardoni
- 349. Collegium Musicum.** (1:0:3) F.S. Cannon  
Designed for advanced instrumentalists and vocalists (non-music majors as well as music majors) for credit or audit. Reading of music literature and study of performance practices, medieval to contemporary. Some reading performances for music classes and recital series.
- 350. Brass, Piano, Ancient Instrument, String, Vocal, or Woodwind Ensemble.** (1:0:3) F.S.Su. Staff
- 360p. Private Instruction.** (2:1:0) F.S.Su. Staff  
Fifteen lessons per semester. Special fee. (For staff see 160p.)
- 363, 364. Vocal Workshop.** (1:0:2 ea.) F.S. Woodward  
Voice building, problems of solo and group singing, and survey of solo and small ensemble literature. Designed for music education majors with instrumental specialties only. Those students taking voice as specialty should not enroll in this class.
- 367. Percussion Workshop.** (1:0:5 for  $\frac{1}{2}$  semester) S.Su. Prerequisite: Music 192 or equivalent. R. Laycock  
Designed to help music education majors learn to play and to teach percussion instruments. Survey of materials.
- 368. Woodwind Workshop.** (2:0:5) F.Su. Prerequisites: Music 192 or equivalent. Bos, R. Laycock  
Designed to help music education majors learn to play and to teach woodwind instruments. Survey of materials.
- 370. Brass Workshop.** (2:0:5) S.Su. Prerequisite: Music 192 or equivalent. Staff  
Designed to help music education majors learn to play and to teach brass instruments. Survey of materials.
- 372. String Workshop.** (2:0:5) F.Su. Prerequisite: Music 192 or equivalent. Staff  
Designed to help music education majors learn to play and to teach string instruments. Survey of materials.

- 374. Choral Practicum.** (2:0:5) S.Su. Prerequisites: Music 202, 364, or equivalent. Weight, Woodward  
Designed for music education majors. Experience in choral conducting and singing of typical school materials. Observation and application of rehearsal techniques.
- 375. Instrumental Practicum.** (2:0:5) F.Su. Prerequisites: Music 202, 367, 368, 370, 372, or equivalent. R. Laycock  
Experience for music education majors in orchestra and band conducting and playing of school materials on the students' minor instruments. Observation and application of rehearsal techniques.
- 377. Secondary Teaching Procedures.** (3:3:1) F.S. Prerequisite: Instruction 301. Staff  
The development of music education concepts; philosophy, objectives, principles, management and methodology. Eighteen hours of participation in the laboratory school is required.
- 378. General Music Practicum.** (1:0:5 for  $\frac{1}{2}$  semester) S. Terry  
Designed for music education majors. Experience in materials, methodology, and management of the general music education program in public school.
- 391. Harmony at the Keyboard.** (3:3:0) F. Prerequisites: Music 192 and moderately advanced keyboard technique. Keeler  
Harmonization of figured and unfigured basses and other voices; cadences, sequences, transpositions, modulations, and improvisations at the keyboard.
- 463. Piano Accompanying.** (1:0:3) F.S.Su. Staff
- 468. Organ Problems.** (2:2:0) S. Prerequisites: Music 167, advanced standing as an organ student, and consent of instructor. Keeler  
Registration, accompaniment playing, and related problems.
- 479. Secondary Student Teaching.** (8:full day, 1st and 2nd blocks of semesters) F.S. Prerequisite: Music 377. Staff  
See Education 479.
- 484, 485. History of Music.** (3:3:0 ea.) F.S.Su. (G-HA) Prerequisites: Music 192 or Music 101, 102 and 103 or equivalent. Cannon, Wakefield
- 491. Analytical Techniques.** (3:3:0) S.Su. Prerequisite: Music 292. Bradshaw  
Development of skill in recognizing processes by which the basic elements of music are organized into compositions of various forms and styles.

### Advanced Undergraduate or Graduate Courses

- 537x. Music for Elementary School Teachers (Advanced).** (2:2:0) Home Study only. Prerequisites: Music 102, 237. Groesbeck  
Experiences in teaching various music activities in the elementary school.
- 565. Piano Pedagogy.** (2:2:0) S. Prerequisite: advanced standing as a pianist. Keeler  
Methods, materials, and problems in teaching piano.
- 566, 567. Vocal Repertoire.** (1:0:2 ea.) F.S.Su. Prerequisite: advanced ability as a singer. Weininger
- 568. Vocal Pedagogy.** (2:2:0) S.Su. Prerequisite: advanced standing as a singer. Weininger  
Methods, materials, and problems in teaching voice.
- 569. Organ Pedagogy.** (2:2:0) S. Prerequisite: Music 360p and 468. Keeler  
Methods, materials, and problems in teaching organ.
- 571, 572. Counterpoint.** (3:3:0 ea.) F.S.Su. Prerequisite: Music 292. Cundick
- 581, 582. Orchestration.** (3:3:0 ea.) F.S.Su. Prerequisite: Music 292. Gates

- 587, 588. Composition.** (3:3:0 ea.) F.S.Su. Prerequisite: Music 292.  
Cundick, Gates

### Graduate Courses

- 601. Music in the Elementary School.** (2:2:0) F.Su. Prerequisites: Music 237 and the equivalent of an elementary education teaching major in music.  
Grosbeck  
Presenting appropriate concepts, attitudes and understanding concerning a wholesome music program for elementary school children.
- 603. Music in the Junior High School.** (2:2:0) S.Su. Prerequisite: Music 601 or equivalent.  
Terry  
The principles, practices, and programs of music in the junior high school.
- 605. Influence of Music on Behavior.** (3:3:0) F.Su. Prerequisite: general psychology, sociology, or equivalent.  
The sociological and psychological implications of music education in the public schools. Required of all graduate students majoring in music education.
- 610. Supervision and Administration of Music in the Public Schools.** (2:2:0) S.Su.  
Goodman  
Presenting the better procedures of music administration and supervision for elementary, secondary schools, and junior colleges commensurate with current educational philosophies. This course or Music 612 is required of all graduate students majoring in music education.
- 612. Music Education in Society.** (3:3:0) S. Prerequisites: Music 484, 485 or equivalent.  
Goodman  
The application of music education to the economic, political, business, domestic, religious, and cultural aspects of society. This course or Music 610 is required of all graduate students majoring in music education.
- 613. Basic Concepts in Music Education.** (2:2:0) F.Su.  
Goodman  
The philosophical and historical aspects of music education, involving principles, objectives, practices, and programs. A course designed for and required of all graduate music students.
- 615. Vocal Methods, Materials, and Resources.** (2:2:0) F.Su. Prerequisite: Music 479 or equivalent.  
Halliday
- 616. Instrumental Methods, Materials, and Resources.** (2:2:0) S.Su. Prerequisite: Music 479 or equivalent.
- 620. Advanced Conducting.** (2:2:2) F.Su. Prerequisites: Music 374, 375, or equivalent.  
Sardoni
- 625. Summer Music Clinic.** (2:4:4 for two weeks during clinic) Su.  
Staff  
May be counted as either music education or applied music.
- 635. Musical Research Techniques.** (3:3:0) F.Su. Prerequisite: graduate standing or consent of instructor.  
Cannon, Earl  
Required of all candidates for graduate music degrees.
- 637. Medieval and Renaissance Music.** (4:4:0) F.Su. Prerequisites: Music 484, 485.  
Cannon
- 638. Music in the Baroque Era.** (3:3:0) S.Su. Prerequisites: Music 484, 485.  
Cannon, Wakefield
- 639. Music in the Classic and Romantic Eras.** (4:4:0) F.Su. Prerequisites: Music 484, 485.  
Cannon, Wakefield
- 641. Special Lectures in Musicology.** (3:3:0) F.S.Su. Prerequisites: Music 484, 485, or equivalent.  
Staff

648. **Collegium Musicum.** (1:0:3) F.S. Prerequisite: consent of director. Cannon  
Practical experience in designing programs, outlining music and preparing notes of music from the medieval to modern times.
652. **History of Notation and Paleography.** (3:3:0) F.Su. (Offered 1962-63 and alternate years) Prerequisites: Music 484, 485, 637, or equivalent. Cannon
656. **Hymnology.** (2:2:0) S. Prerequisite: Music 484, 485, or equivalent. Weight
- 660p. **Private Instruction.** (2:1:0) F.S.Su. Staff  
Fifteen lessons per semester. Special fee. (For staff see 160p).
663. **Solo Recital.** (2:0:6-10) F.S.Su. Cundick  
Required of all graduate students minoring in applied music.
673. **Form and Analysis.** (3:3:0) F.Su. Prerequisites: Music 491, 572. Cundick
675. **Materials of Modern Music.** (3:3:0) S.Su. Prerequisite: Music 673. Cundick, Gates
686. **Pedagogy of Music Theory.** (3:3:0) F.Su. Prerequisite: Music 292. Nordgren
- 687, 688. **Composition.** (3:3:0 ea.) F.S.Su. Prerequisite: Music 588 or equivalent. Cundick, Gates
693. **Pro-Seminar in Music.** (2:2:0) S.Su. Prerequisites: Music 484, 485, 635, or equivalent and approval of advisory committee. Cannon, Goodman, H. Laycock  
Required of all candidates for graduate music degrees.
694. **Independent Readings.** (2:0:6) F.S.Su. Prerequisite: Music 693 or equivalent. Cannon, Goodman, H. Laycock
695. **Independent Readings.** (2:0:6) F.S.Su. Prerequisite: Music 693 or equivalent. Cannon, Goodman, H. Laycock
698. **Composition for Master's Degree.** (2-4:Arr.:Arr.) F.S.Su. Prerequisite: approval of graduate advisory committee, based on evidence of ability in composition. Staff  
To be submitted in lieu of a thesis by candidates for the master's degree majoring in composition.
699. **Thesis for Master's Degree.** (2-6:Arr.:Arr.) F.S.Su. Prerequisite: approval of graduate advisory committee. Staff  
Candidates for the master's degree are required to show competence in writing and research before work is started on the thesis.
753. **Advanced Problems in Notation.** (3:3:0) S. (Offered 1962-63 and alternate years) Prerequisite: Music 652. Cannon
754. **History of Musical Instruments.** (3:3:0) F. (Offered 1963-64 and alternate years) Prerequisites: Music 484, 485 or equivalent. Wakefield
785. **Historical Aspects of Music Theory.** (3:3:0) S.Su. (Offered 1962-63 and alternate years) Prerequisite: Music 292. Nordgren
791. **Acoustics of Music.** (3:3:0) S. (Offered 1963-64 and alternate years) Prerequisite: Music 292. Monson
794. **Seminar in Music.** (3:3:0) F.S.Su. Prerequisites: Music 635, 693, or equivalent, and approval of graduate advisory committee. Cannon, Goodman, H. Laycock
799. **Dissertation for Ph.D. Degree.** (Arr.) F.S.Su. Prerequisite: approval of graduate advisory committee. Staff

## Nursing

**Professor:** Allen (dean, 2240 SFLC).

**Associate Professor:** Jenny.

**Assistant Professors:** Allred, Bethers, Holley, Kohler, Morrison.

**Instructors:** Adamson, Alward, Briick, Drury, Durfey, Langer, Noall, Potter, Stevensen, Wilson.



## Requirements for a Composite Major and Minor

The following program includes the requirement for a composite major and minor:

First Year			
	F	S	Su
Scripture 121, 122 ....	2	2	
English 111, 112 .....	3	3	
Physical education ....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Chemistry 101, 102 ..	4	4	
Zoology 105, 261 .....	3	4	
Psychology 111 .....	3		
Nursing 201 .....		2	
Nursing 211 .....		2	
Sociology 111 .....			3
Bacteriology 121 .....			3
Food and Nutrition 115 .....			2
Total Hours .....	15 $\frac{1}{2}$	17 $\frac{1}{2}$	8 $\frac{1}{2}$

Second Year			
	F	S	Su
Religion .....			2
Physical education ....	$\frac{1}{2}$		
Nursing 290, 223 .....	2	3	
Nursing 202, 233 .....	5	4	
Nursing 212, 421 .....	5	3	
Nursing 431 .....		4	
H.D.F.R. 210 .....	3		

Physics 100 .....	3		
Humanities .....		3	
History 170 .....			3
Total Hours .....	18 $\frac{1}{2}$	17	5

Third Year			
	F	S	Su
Religion .....	4	2	
Sociology 403 .....	2		
Nursing 351, 324 .....	4	3	
Nursing 361, 334 .....	6	3	
Nursing 475 .....		2	
Nursing 477 .....		2	
Nursing 485 .....		4	
Total Hours .....	16	16	

Fourth Year			
	F	S	Su
Religion .....	4		
Humanities .....		6	
Nursing 325, 488 .....	5	6	
Nursing 335, 490 .....	5	3	
Total Hours .....	14	15	

## For Non-Nursing Majors:

## Lower Division Course

288. **Family Health and Home Nursing.** (1:1:0) F.S. Jenny  
 Essential knowledge and attitudes about healthful family living. Skills in giving home nursing care to the sick or injured. Essentials of maternal health and child care.

**For Majors in Nursing:****Lower Division Courses**

- 201. Fundamentals of Nursing.** (2:2:0) S. Prerequisites: completion of or concurrent registration in Chemistry 102, Zoology 261.

Allred, Briick, Durfey  
Introduction to principles of nursing relating the basic sciences inherent in meeting the following physiological needs: energy, motion, body regulation, sensation, and maintenance of health and life.

- 202. Introductory Medical-Surgical Nursing.** (5:5:0) F. Prerequisites: Nursing 201; Bacteriology 121; Food and Nutrition 115; and completion of or concurrent registration in Physics 100 and H.D.F.R. 210.

Allred, Briick, Bethers, Wilson  
Principles of medical-surgical nursing with emphasis on the following physiological needs: energy, body regulation, sensation and maintenance of health and life.

- 211. Fundamentals of Nursing Laboratory.** (2:0:8) S. Prerequisite: concurrent registration in Nursing 201.

Supervised experience in the identification of needs of selected patients and the development of nursing skills with emphasis on comfort and activity.

- 212. Introductory Medical-Surgical Nursing Laboratory.** (5:0:20) F. Prerequisite: concurrent registration in Nursing 202.

Allred, Bethers, Briick, Wilson  
Selected experiences and patient care in the application of principles from medical-surgical nursing.

- 223. Intermediate Medical-Surgical Nursing.** (3:6:0) S. Eight-week block. Prerequisite: Nursing 202.

Adamson, Noall, Stevensen  
Continuation of principles of medical-surgical nursing with emphasis on sensory perception, body metabolism, and growth and development.

- 233. Intermediate Medical-Surgical Nursing Laboratory.** (4:0:32) S. Eight-week block. Prerequisite: concurrent registration in Nursing 223.

Adamson, Noall, Stevensen  
Guided experience in patient-centered nursing care with application of medical-surgical principles.

- 290. Trends in Nursing.** (2:2:0) F. Allen

Study in relationships, origin, and development of nursing to present patterns.

**Upper Division Courses**

- 324. Advanced Medical-Surgical Nursing.** (3:6:0) F.S. Eight-week block. Prerequisite: Nursing 223.

Adamson, Noall, Stevensen  
Principles of medical-surgical nursing emphasizing complex problems related to motion, sensory transmission and reaction.

- 325. Advanced Medical-Surgical Nursing.** (5:5:0) F.S. Prerequisite: Nursing 223.

Adamson, Drury, Noall, Stevensen  
Principles of medical-surgical nursing with emphasis on complex problems related to the following physiological needs: energy, sensation, body regulation and maintenance of health and life.

- 334. Advanced Medical-Surgical Nursing Laboratory.** (3:0:24) F.S. Eight-week block. Prerequisite: concurrent registration in Nursing 324.

Adamson, Noall, Stevensen  
Guided experience in complex patient-centered nursing care with application of medical-surgical nursing principles.

- 335. Advanced Medical-Surgical Nursing Laboratory.** (6:0:24) F.S. Prerequisite: concurrent registration in Nursing 325.

Adamson, Drury, Noall, Stevensen  
Guided experience in complex patient-centered nursing care with application of medical-surgical nursing principles.

- 351. Maternal and Child Health Nursing.** (4:4:0) F.S. Prerequisites: Nursing 202; H.D.F.R. 210; completion of or concurrent registration in Sociology 403.

Alward, Kohler, Potter  
Family centered approach to the study of parenthood, including care of mothers throughout the maternity cycle; of newborn infants; and of children in health and selected illnesses.

- 361. Maternal and Child Health Nursing Laboratory.** (6:0:24) F.S. Prerequisite: concurrent registration in Nursing 351.

Alward, Kohler, Potter  
Experience in care of mothers and children in physician's offices, maternity and pediatric clinics, and maternity and pediatric hospital divisions.

- 421. Psychiatric Nursing and Mental Health.** (3:6:0) F.S. Eight-week block. Prerequisites: Psychology 111; Nursing 202.

Holley, Morrison  
Understanding dynamics of human behavior and mental illness; implications of psychiatric and mental health concepts for nursing.

- 431. Psychiatric and Mental Health Nursing Laboratory.** (4:0:32) F.S. Eight-week block. Prerequisite: concurrent registration in Nursing 421.

Durfey, Morrison  
Clinical experience in developing individual and group relations with mentally ill patients with special emphasis on development of interpersonal relations and communication skills.

- 475. Principles of Public Health Nursing.** (2:4:0) F.S. Eight-week block. Prerequisites: Nursing 351 and concurrent registration in Nursing 485.

Jenny  
Purpose and organization of nursing in the home and community nursing. The principles of comprehensive family service in home, school, and community.

- 477. Public Health Sciences.** (2:4:0) F.S. Eight-week block.

Jenny  
Meaning and scope of public health, public health organization, and programs dealing with epidemiology, statistics, environmental control, maternal-child health, school health, chronic disease, and geriatrics.

- 485. Public Health Nursing Laboratory.** (4:0:32) F.S. Eight-week block. Prerequisite: concurrent registration in Nursing 475.

Jenny  
Experience in public health nursing agency in giving comprehensive nursing care to families and in working with allied professional workers and community agencies.

- 488. Comprehensive Nursing.** (6:0:24) S. Prerequisite: completion of all clinical nursing courses.

Bethers, Wilson  
An analytical approach to identify the nursing and health needs of selected patients, and to synthesize principles learned in nursing and related fields toward the goal of comprehensive care. Opportunities provided for development and initiation of nursing care plans on selected patients.

- 490. Seminar in Professional Nursing Problems.** (3:3:0) S. Prerequisite: fourth year standing in nursing.

Allen, Staff  
Opportunities and responsibilities inherent in the profession; emphasis on current problems and fields; management principles and their application to nursing team and head nursing activities.

## Physical Education



**Professors:** Holbrook (chairman—women, 303 WG), Hart, Hartvigsen, I. Heaton, E. R. Kimball, Nicholes.

**Associate Professors:** Geddes (chairman—men, 248 SFH), Watts.

**Assistant Professors:** Bangerter, Barney, Dixon, A. Heaton, Hafen, Robison, Soffe.

**Instructors:** Anderson, Apostol, Bunker, Bunnell, Call, Chatwin, deHoyos, Doman, Grimmett, Hawkes, Hirst, Jacobson, Jensen, Jones, C. R. Kimball, Lindley, Michaelis, Mitchell, Moe, Parry, Rigby, Rollins, Shaw, Tucker, Tuckett, Uibel, Wallace, Whitfield, Witbeck.

Each student registering at the University is required to complete one physical education course in the 100 series during each semester of his freshman and sophomore years. Transfer students must have the equivalent or take the courses before graduation. Exceptions: (1) Students who are majoring in and who complete the course in engineering science together with requirements for an air science commission are not subject to the physical education requirement. (2) Engineering science students who withdraw from the air science program after two years are exempt from one semester hour of physical education. (3) Veterans with at least one year of full-time military service are exempt from the physical education requirement.

A variety of activities is available for selection. Two year's work in physical education activity will provide the student with an opportunity for organic development, neuro-muscular skill, social contact in game and team situations, and other carry-over values.

Extra-curricular activities are promoted for student participation: games, sports, hikes, dances, and intramural athletics. The department urges all students to participate regularly in some form of physical activity during their four years here.

Men students using the towel service are required to make a 75-cent deposit by purchasing a towel check. This check is exchangeable for towel service during school hours and is redeemable at any time.

A thorough physical examination is required of each freshman student upon entering the University. Any student desiring exemption from physical education for medical reasons must obtain an excuse from the University physician. Written statements from a personal physician must be approved by the University physician.

Each student registered for physical education activity courses is required to provide himself with the official uniform which may be purchased at the Student Service Center. He is also required to provide himself with an approved combination padlock for use on a basket locker. These locks are available for rental at the Physical Education—Men office, Smith Fieldhouse.

### Major Requirements

#### Physical Education—Men:

Physical Education—Men 181, 182, 190, 191, 231, 232, 233, 234, 235, 236, 280, 290, 291, 330, 341, 344, 390, 391, 413, 446, 464, 490, 491; three of the following four courses: 371, 372, 373, 374; and 4½ hours of electives.

**Physical Education—Women:**

Physical Education 181, 182, 183, 187, 188, 190, 191, 241, 242, 244, 245, 280, 290, 291, 330, 341, 344, 375 or 376, 390, 391, 413, 446, 464, 490, 491, 570 or 572, and 2 hours of electives.

**Physical Education—Women (Dance Emphasis):**

Physical Education 181, 182, 183, 187, 188, 190, 191; two of the following courses: 241, 242, 244, 245, 280; three of the following five courses: 281, 282, 283, 284, 285; 287; 288; 290; 291; 330; 341; 380; 383; 387; 388; 390; 391; 413; 446; 464; 484; 485; 487 or 488; 490; 491.

**Physical Education—Women (Dance Non-Teaching):**

Physical Education 181, 182, 183, 187, 188, 280; four courses from 281, 282, 283, 284, 285; and 287, 288, 380, 383, 387, 388, 484, 485, 487, 488.

**Pre-Physical Therapy:**

**Men:** Physical Education 181, 182, 280, 373; three hours from 231, 232, 233, 234, 235, 236. Also 330, 341, 375, 413, 446, 464.

**Women:** Physical Education 181, 182, 280, 570; and two courses from 241, 242, 234, 235, 236. Also, 330, 341, 375, 413, 446, 464.

In addition, both men and women will take the following science foundation courses: Zoology 105 or Botany 101; Zoology 261; Chemistry 101 and 102, or Chemistry 111, 112, and 113; Physics 201; Mathematics 101 and 111.

Preparation courses, some of them filling the general education requirements for all above areas, are: Health 121, Botany 101, and Zoology 261.

Substitutions for any of the courses in the department listed above will be allowed only upon approval of the department chairman.

**Minor Requirements****Physical Education—Men:**

Two courses from Physical Education 180, 181, 182; four hours from 231, 232, 233, 234, 235, 236; four hours from 371, 372, 373, 374. Also, 330, 341\*, and 446.

**Physical Education—Women:**

Two courses from Physical Education 180, 181, 182, 183, 187, 188; three courses from 241, 242, 244, 245, 330, 341\*, and 375 or 376.

**Dance Non-Teaching:**

Physical Education 180, 181, 182, 183, 187, 188, 287, 288, 380, 383, 384, 387, 388, 484, 485, 487, 488.

The department reserves the right to recommend substitutes for any of the above required courses.

**Physical Education Specialization Designed for Elementary Majors:**

Students majoring in elementary education who desire to elect a teaching minor in physical education will take the following courses:

**25-hour list—Men:** Physical Education 180, 181, 182; four courses from 231, 232, 233, 234, 235, 236; and the following courses: 330, 341\*, 373, 375, 376, 446, 464, and Health 121.

**19-hour list—Men:** Two courses from Physical Education 180, 181, 182; four courses from 231, 232, 233, 234, 235, 236; and the following courses: 330, 341\*, 373, 375, 376, and 446.

**25-hour list—Women:** Physical Education 180, 181, 182, 241, 242, 245, 330, 341\*, 375, 376, 446, 464; Health 121.

**18-hour list—Women:** Physical Education 180, 181, 182, 241, 242, 330, 341\*, 375, 376, 446.

**\*Note:** Zoology 264 is a prerequisite for P.E. 341.

## Lower Division Courses

## Activity Courses

All courses in the one hundred series count for general education credit in physical education.

101. **Physical Education Activities—Men.** ( $\frac{1}{2}$ :0:2-3) F. Jones  
Games and a variety of sports activities.
102. **Physical Education Activities—Men.** ( $\frac{1}{2}$ :0:2-3) S. Jones  
Sports activities.
104. **Recreational Sports.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Parry  
Individual, dual, and group games and sports. Activities providing opportunity for ready development of skill and strategy for recreational satisfaction.
110. **Boxing, Beginning—Men.** ( $\frac{1}{2}$ :0:2) F.S. Witbeck
111. **Boxing, Intermediate—Men.** ( $\frac{1}{2}$ :0:2) F.S. Prerequisite: Physical Education 110 or equivalent. Soffe, Witbeck
113. **Wrestling, Beginning—Men.** ( $\frac{1}{2}$ :0:2) F.S. Whitfield
114. **Wrestling, Intermediate—Men.** ( $\frac{1}{2}$ :0:2) F.S. Prerequisite: Physical Education 113 or equivalent. Whitfield
115. **Fencing.** ( $\frac{1}{2}$ :0:2) F.S. deHoyos  
Equipment is furnished by the University.
121. **Track and Field, Indoor—Men.** ( $\frac{1}{2}$ :0:2) F. Robison
122. **Track and Field, Freshman—Men.** ( $\frac{1}{2}$ :0:2) S. Robison
123. **Badminton.** ( $\frac{1}{2}$ :0:2) F.S.Su. Rigby, Soffe  
Student furnishes birds.
125. **Handball—Men.** ( $\frac{1}{2}$ :0:2) F.S.Su. Jones  
Student furnishes glove and ball.
126. **Archery.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Hafen, Jacobsen  
Individual techniques with various types of tournaments and related archery activities. Student furnishes arrows, bow string, and finger tabs.
127. **Bowling.** ( $\frac{1}{2}$ :0:2) F.S.Su. Fee. Anderson, Dixon
131. **Golf, Beginning.** ( $\frac{1}{2}$ :0:2) F.S.Su. Tucker  
Equipment is furnished by the University.
132. **Golf, Intermediate.** ( $\frac{1}{2}$ :0:2) F.S.Su. Prerequisite: Physical Education 131 or equivalent. Tucker  
Equipment is furnished by the University.
133. **Tennis, Beginning.** ( $\frac{1}{2}$ :0:2) F.S.Su. Dixon, Hawkes  
Student furnishes racket and balls.
134. **Tennis, Intermediate.** ( $\frac{1}{2}$ :0:2) F.S.Su. Prerequisite: Physical Education 133 or equivalent. Dixon, Hawkes  
Student furnishes racket and balls.
135. **Skiing, First Year.** ( $\frac{1}{2}$ :0:5) F.S. Jacobson, Uibel  
First year skiing for participants of varying abilities. Sections formed on the basis of ability with instruction suited to varying skill levels in fundamentals of skiing. The student furnishes his ski equipment and pays ski tow fees. Fee.  
(Permission to withdraw with refund restricted.)
136. **Skiing, Second Year.** ( $\frac{1}{2}$ :0:5) F.S. Jacobson, Uibel  
Second year skiing for participants of varying abilities. Classification for

instruction based upon ability. The student furnishes all his ski equipment and pays ski tow fees. Fee.

(Permission to withdraw with refund restricted.)

137. **Hiking.** ( $\frac{1}{2}$ :0:3-5) F.S.Su. Hafen, Holbrook  
Hikes in the surrounding areas graded according to length and difficulty include related observations and study. Fee.  
(Permission to withdraw with refund restricted.)
138. **Outing Activities.** ( $\frac{1}{2}$ :0:3-5) F.S.Su. Michaelis  
Selected seasonal activities which may include walking, nature observation and study, horseback riding, snowshoeing, coasting, bicycling, roller skating, canoeing, sleighing, ice skating, tracking and trailing, and outdoor cookery.
140. **Basketball, Beginning.** ( $\frac{1}{2}$ :0:2) F.S. Wallace, Witbeck
141. **Basketball, Intermediate—Men.** ( $\frac{1}{2}$ :0:2) F.S. Prerequisite: Physical Education 140 or equivalent. Bunker
144. **Volleyball.** ( $\frac{1}{2}$ :0:2) F.S.Su. Geddes, Soffe, Wallace
148. **Soccer.** ( $\frac{1}{2}$ :0:2) F.S. Jones, Wallace
149. **Field Sports—Women.** ( $\frac{1}{2}$ :0:2-3) F.S. Wallace
150. **Hockey—Women.** ( $\frac{1}{2}$ :0:2-3) F. Wallace
152. **Softball—Women.** ( $\frac{1}{2}$ :0:2-3) F. Parry
154. **Football, Beginning.** ( $\frac{1}{2}$ :0:5) F. Tuckett  
Limited to those qualifying for freshman football squad.
155. **Football, Intermediate.** ( $\frac{1}{2}$ :0:5) F. Mitchell  
Limited to varsity football players.
156. **Baseball, Beginning.** ( $\frac{1}{2}$ :0:5) F.S. Tuckett  
Limited to those qualifying for freshman baseball squad.
157. **Baseball, Intermediate.** ( $\frac{1}{2}$ :0:5) S. Tuckett  
Limited to varsity baseball players.
160. **Swimming, Beginning.** ( $\frac{1}{2}$ :0:2-3) S. Hirst, Uibel, Wallace  
Beginning swimming techniques to provide a foundation for skill, safety, and enjoyment of water activities. Fee. (Permission to withdraw with refund restricted.)
161. **Swimming, Intermediate.** ( $\frac{1}{2}$ :0:2-3) S. Prerequisite: Physical Education 160 or equivalent. Rigby, Wallace  
Swimming skills including strokes, diving, and synchronizing. Fee. (Permission to withdraw with refund restricted.)
164. **Life Saving.** ( $\frac{1}{2}$ :0:3) S. Hirst, Uibel, Wallace  
American Red Cross senior life saving course. Fee.
165. **Water Safety Instruction.** ( $\frac{1}{2}$ :0:3) S. Prerequisite: Physical Education 164 or equivalent. Hirst, Uibel, Wallace  
American Red Cross course. Fee.
166. **Canoeing.** ( $\frac{1}{2}$ :0:4) F.S.Su. Prerequisite: ability to pass swimming test. Hirst, Holbrook, Wallace  
Instruction in canoeing techniques on the varied waterways of Utah County. American Red Cross basic canoeing and instructors cards issued to qualifying students. Fee. (Permission to withdraw with refund restricted.)
170. **Tumbling.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Parry, Wallace
171. **Trampoline and Tumbling.** ( $\frac{1}{2}$ :0:2) F.S. Moe, Wallace

- 173. Trampoline and Gymnastics, Beginning—Men.** ( $\frac{1}{2}$ :0:2) F.S. Moe  
Basic instruction in gymnastics and free exercises and trampoline; techniques in use of apparatus and equipment.
- 174. Trampoline and Gymnastics, Intermediate—Men.** ( $\frac{1}{2}$ :0:2) F.S. Prerequisite: Physical Education 173 or equivalent. Moe
- 175. Preventive and Remedial Exercise.** ( $\frac{1}{2}$ :0:2) F.S.Su. Prerequisite: permission of instructor or referral by Health Center. Barney, Call  
A fundamental body mechanics, posture, and corrective exercise program.
- 176. Activities for Fitness—Women.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Parry, Wallace  
Sequential and progressive exercises and game activities for general fitness. Balance, skill, flexibility and other factors are developed.
- 177. Principles and Methods of Body Mechanics.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Staff
- 178. Progressive Weight Training—Men.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Barney
- 180. Social Dance.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Anderson, Chatwin, A. Heaton
- 181. Folk Dance.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. Anderson, Jensen
- 182. Square Dance.** ( $\frac{1}{2}$ :0:2-3) F.S.Su. A. Heaton, Jensen
- 183. Tap Dance.** ( $\frac{1}{2}$ :0:2-3) Arr. Bunnell  
Fundamental and basic rhythms progressing into creative and interpretive tap dancing.
- 187. Modern Dance Technique.** ( $\frac{1}{2}$ :0:2-3) F.S. Bunnell, Chatwin, Grimmett  
Progressive fundamental techniques of movement with emphasis on an understanding of rhythm, space, tension, relaxation, and basic locomotion activities.
- 188. Modern Dance Technique.** ( $\frac{1}{2}$ :0:2-3) S. Prerequisite: Physical Education 187. Bunnell, Chatwin, Grimmett  
Progressive fundamental techniques of movement with emphasis on an understanding of the qualities and the structural analysis of movement.
- 190, 191. Physical Education College Seminar—Freshman.** (0:1:0) F.S. Staff

### Professional Courses

- 207. Sports Officiating—Women.** (2:1:3) F. Wallace  
Rules, techniques, problems, and procedures in officiating softball, volleyball, and basketball. National ratings may be obtained by passing the WNORC examinations.
- 231. Sports Fundamentals for Majors—Men.** (1:0:3) F.S. Witbeck  
Speedball, soccer, boxing, and wrestling.
- 232. Sports Fundamentals for Majors—Men.** (1:0:3) F.S. Bangerter, Moe  
Gymnastics, tumbling, progressive weight training, and calisthenics.
- 233. Sports Fundamentals for Majors—Men.** (1:0:3) F.S. Call, Dixon  
Golf, handball, squashball, and bowling.
- 234. Sports Fundamentals for Majors—Men.** (1:0:3) F.S. Soffe  
Badminton, volleyball, games, and relays.
- 235. Sports Fundamentals for Majors—Men.** (1:0:3) S. Uibel  
Swimming, water safety, and life saving.
- 236. Sports Fundamentals for Majors—Men.** (1:0:3) F.S. Dixon, Witbeck  
Flag football, tennis, and archery.
- 241. Skills and Teaching Techniques—Women.** (2:0:4) F. Wallace  
Soccer, speedball, volleyball, trampoline, and marching.

242. **Skills and Teaching Techniques—Women.** (2:0:4) S. Wallace  
Tumbling, body mechanics, outdoor games, track and field, and softball.
244. **Skills and Teaching Techniques—Women.** (2:0:4) F. Hirst  
Hockey, badminton, basketball, and activities calling for coordination, balance, flexibility, agility, and timing.
245. **Skills and Teaching Techniques—Women.** (2:0:4) S. Hirst  
Archery, golf, bowling, rope jumping, and recreational sports.
250. **Methods for Ski Instruction.** (1:0:4) F. Uibel  
Instruction course in skiing for those who wish to qualify as student instructors in the ski program.
280. **Techniques for Teaching Social Dance.** (1:0:2-3) F.S.Su. Prerequisite: Physical Education 180. A. Heaton
281. **Techniques of Teaching and Calling Square Dance.** (1:0:3) F. Prerequisite: a course of thorough performance and knowledge in square dance. Jensen  
Analysis of dance forms; their presentation for ready learning with study and laboratory experience in square dance teaching and calling.
282. **Square Dance, Advanced.** (1:0:2-3) F.S. Jensen
283. **Social Dance, Advanced.** (1:0:2-3) F.S. A. Heaton
284. **Folk Dance, Advanced.** (1:0:2-3) F.S. Jensen
285. **South American Dance.** (1:0:2-3) F.S. A. Heaton
287. **Dance Composition.** (1:0:3) F. Prerequisites: Physical Education 187, 188. Chatwin  
Compositional consideration with emphasis on the use of the elements of space and fundamental locomotion movement.
288. **Dance Composition.** (1:0:3) S. Prerequisite: Physical Education 287. Chatwin  
Compositional consideration with emphasis on the use of qualities of movement, rhythm, and form.
- 290, 291. **Physical Education College Seminar—Sophomores.** (0:1:0) F.S. Staff

### Upper Division Courses

#### Professional Courses

330. **Principles of Physical Education.** (3:3:0) F.S. Holbrook  
The principles of physical education and the relationship of physical education to total education.
341. **General Kinesiology.** (3:3:0) F.S. Prerequisite: Zoology 261 or equivalent. Barney
344. **Physiology of Activity.** (3:3:0) Prerequisite: a course in human anatomy and physiology. Staff  
Muscular activity, how it is dependent on adequate nutrition, how it is regulated by the nervous system, and how the circulatory, respiratory, excretory, and endocrine systems are interdependent with the skeletal muscle system. Changes in these systems which take place during systematic exercise and athletic performance programs are especially emphasized.
371. **Football Fundamentals and Coaching.** (2:1:2) F.S. Mitchell  
Theory and fundamentals of the game; methods of working out plays; systems of offense and defense; conditioning drills.

- 372. Basketball Fundamentals and Coaching.** (2:1:2) F.S. Watts  
Theory and fundamentals of offensive and defensive systems, and schedule making.
- 373. Track and Field Fundamentals and Coaching.** (2:1:2) F.S. Robison  
Theory, fundamentals, and techniques of track and field athletics with some emphasis on management of meets.
- 374. Baseball Fundamentals and Coaching.** (2:1:2) F.S. Tuckett  
Theory, fundamentals, problems, and techniques of baseball with some consideration of team tactics, rules, and conditioning.
- 375. Physical Education for Teachers of Primary Grades.** (2:0:4) F.S.Su. Jacobson, Michaelis  
Analysis of the fundamentals, the development of skills, and the application of methods in the teaching of games, rhythms, and recreation activities for grades 1, 2, and 3.
- 376. Physical Education for Teachers of Intermediate Grades.** (2:0:4) F.S.Su. Hirst Michaelis  
Analysis of fundamentals and development of skills for teaching in games, rhythms, and recreation activities for grades 4, 5, and 6.
- 377. Secondary Teaching Methods and Procedures.** (3:3:1) F.S. Prerequisite: Instruction 301. Bangerter  
See Instruction 377 for description.
- 380. Dance Production.** (2:3:2) S. Chatwin  
Information on costuming, make-up, stage sets and scenery, lighting, and accompaniment for dance concerts.
- 383. Rhythmic Analysis and Accompaniment.** (2:5:0) S. Grimmett  
The analysis of rhythm, its relationship to movement, and its forms of sound and musical accompaniment.
- 387. Advanced Modern Dance.** (1:0:5) F. Prerequisites: Physical Education 187, 188 or equivalent. Chatwin  
Progressive techniques of movement for students with a strong background in modern dance.
- 388. Advanced Modern Dance.** (1:0:5) S. Prerequisites: Physical Education 187, 188, 387 or equivalent. Chatwin
- 390, 391. Physical Education College Seminar—Juniors.** (0:1:0) F.S. Staff
- 406. Sports Officiating—Men.** (2:2:1) F. Soffe  
Rules, techniques, problems, and procedures in officiating football, basketball, and other team and individual sports. Suggested for those desiring to officiate in the intramural program.
- 413. Organization and Administration of Physical Education.** (2:2:0) F.S. Prerequisite: Physical Education 330. Hartvigsen  
Administrative problems arising out of organizing and conducting health, physical education, and recreation programs in schools and communities.
- 446. Adaptation of Activities in Corrective Procedure.** (2:1:3) F.S. Prerequisites: Zoology 261 or equivalent; Physical Education 341. Call  
The selection and scope of corrective activities, forces, and mechanics in body balance, variations of posture, methods of stimulating interest in posture, and the psychology of individual gymnastics.
- 464. Introduction to Statistics and Tests in Physical Education.** (4:3:2) F.S. Hart  
Background course in physical achievement tests. History of the development, together with analysis of outstanding tests in physical education and elementary statistical procedures used in analyzing tests.
- 479. Secondary Student Teaching.** (8:1:15) F.S. Staff  
For description and fees see Instruction 479.

484. **Philosophy and Principles of Dance.** (2:3:0) S. Chatwin  
Theories and philosophies of contemporary dance and dancers and the significance of these ideas in view of their effect on modern educational and cultural uses of dance.
485. **History of Dance.** (2:3:2) F. Prerequisites: Physical Education 187, 188, 387, 388. Chatwin  
Beliefs in and practices of various forms of dance from early to modern times.
487. **Concert Dance.** (1:0:3-4) F. Bunnell, Chatwin, Grimmett  
Performance techniques and composition for modern dance.
488. **Concert Dance.** (1:0:3-4) S. Bunnell, Chatwin, Grimmett
- 490, 491. **Physical Education College Seminar—Seniors.** (0:1:0) F.S. Staff

#### Advanced Undergraduate or Graduate Courses

511. **Administration of High School Athletics.** (2:2:0) F. E. R. Kimball  
Education outcomes of high school activities, their relationship to the intramural program, the physical education program, the school, and the community as a whole.
514. **Organization and Administration of Intramural Sports.** (2:2:0) F. Home  
Study also. Hafen  
History, present status, and objectives of the intramural movement procedures concerning organization, administration, and supervision of the intramural program.
542. **Physical Inspection.** (1:1:0) S. Staff  
Ways of recognizing abnormalities of body function by inspection and test procedures.
543. **Problems in Athletic Conditioning and Injuries.** (2:1:2) F. Prerequisites: Physical Education 341, 446. Barney  
Fee.
570. **Teaching Progression in Individual Sports.** (2:4:0) S. Prerequisite: skills classes or equivalent. Jacobson, Soffe  
Materials, methods, and teaching progression in individual sports such as archery, badminton, bowling, golf, tennis.
571. **Teaching Progression in Team Sports—Men.** (2:1:2) F. Soffe  
Materials, methods, and teaching progression in team sports such as basketball, football, soccer, softball, speedball, volleyball, and wrestling.
572. **Teaching Progression in Team Sports—Women.** (2:2:2) F.S. Hirst  
Materials, methods, and teaching progression in team sports such as basketball, field hockey, soccer, softball, speedball, and volleyball.
574. **Teaching Techniques in Gymnastics.** (2:1:2) F. Bangerter
575. **Materials and Methods for Secondary Teachers—Women.** (2:1:2) F. Hirst
588. **Workshop in Modern Dance.** (2:2:6) Su. Prerequisite: competency in modern dance. Chatwin, Holbrook  
Advanced techniques, composition, improvisation, and accompaniment.

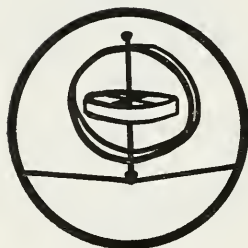
#### Graduate Courses

600. **Curriculum Construction and Supervision in Physical Education.** (3:3:0) S. Hart  
Curriculum construction for elementary, secondary, and college physical education with techniques of supervision in improving teacher-pupil learning situations.

- 603. Planning Facilities.** (2:2:0) S. E. R. Kimball  
Basic planning of facilities for school and community physical education and recreation programs.
- 621. History and Philosophy.** (3:3:0) S. Holbrook  
Beliefs and practices from early to modern times as related to physical education. Significance and implications of these in view of their effect upon modern educational thinking and cultural uses.
- 641. Principles and Practices of Physical Reconditioning.** (2:2:0) F. Prerequisite: Zoology 261. Barney
- 660. Measurement and Evaluation in Physical Education and Health Education.** (3:3:0) S. Prerequisite: Physical Education 464 or equivalent. Hart
- 673. Physical Education in the Elementary School.** (3:3:0) Su. Holbrook  
For the teacher, the principal, and the supervisor. Emphasis on objectives, interrelationships with the curriculum, and the content material used in accomplishing educational results.
- 691. Seminar in Administration and Public Relations.** (3:3:0) S. Hartvigsen
- 692. Research Methods in Physical Education.** (3:3:0) F. Hart
- 694. Seminar in Readings.** (2:2:0) F.S. Staff
- 696. Seminar in Problems.** (1:1:0) S. Staff
- 698. Field Project, Master's Degree.** (1-4:0:Arr.) F.S.Su. Staff
- 699. Thesis, Master's Degree.** (1-6:0:Arr.) F.S.Su. Staff

**Professor:** Hill.  
**Associate Professor:** Compton.  
**Instructor:** Gee (in charge, 228 ESC).

## Physical Science



(An interdepartmental area only)

### Lower Division Courses

**101, 102. Concepts of Physical Science.** (3:3:0 ea.) 101—F; 102—S (G-PS) Hill

This is the unified course in physical science recommended as the most satisfactory way to complete the general requirements in this area for non-science majors. Fundamental concepts of physics, astronomy, chemistry, and geology are covered. Emphasis is given to a penetrating application of the methods of science to a relatively few basic topics rather than to a superficial survey of the subject matter areas.

Both semesters must be taken in order to receive credit which will meet the requirements for general education in the physical sciences. The semesters must be taken in proper sequence but need not be taken the same year.

### PHYSICAL SCIENCE EDUCATION

#### Upper Division Courses

**377. Secondary Teaching Procedures.** (3:3:1) F.S. Prerequisite: Instruction 301. Staff

For course description and fees, see Education 377.

**479. Secondary Student Teaching.** (5-8:1:25-40) F.S. Prerequisite: Physical Science 377 or equivalent. Compton, Wickes

For course description and fees, see Education 479.

**These courses also count in physical science education:**

**Education 493, 494. Independent Reading.** (1-2:0:Arr.)

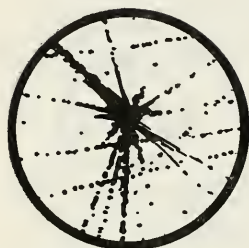
**Education 670. Teaching Mathematics and Science in Secondary Schools.** (2:2:0)

## Physics

**Professors:** Gardner (chairman, 287 ESC), Eastmond, Fletcher, W. Hales, R. Hales, A. Hill.

**Associate Professors:** Dixon, McNamara.

**Assistant Professors:** Ballif, Barnett, Decker, Dudley, Geertsen, M. Hill, Miller, Nelson, Vanfleet.



The curriculum of the Department of Physics is designed to provide: (1) training for students majoring in physics including those whose specialty is astronomy; (2) a basic and fundamental background for other physical sciences and engineering; (3) the broadening program required by the biological sciences, pre-medical, pre-dental, and nursing programs; (4) training in the subject matter of physics for prospective teachers of the physical sciences; and (5) information required for the liberal arts and general education.

Students who expect to major in physics, other physical sciences, or engineering should begin their study of physics by electing Physics 211 and 212. Students who expect to study medicine, dentistry, or to major in the fields of biological sciences may elect Physics 201, 202, and 303.

Non-science students may elect with profit Physics 100, 101, 102, 127, 128, 137, or 177, any one of which may be taken without prerequisites and which are organized with the object of giving the student an appreciation of his physical environment.

Students expecting to use physics as a teaching major or minor or as a part of a composite teaching major should refer to the part of this catalog referring to subject matter preparation of secondary school teachers.

### Requirements for Physics Major

The Physics Department offers a program leading to the Bachelor of Science degree. For special requirements of the College of Physical and Engineering Sciences see that section of this catalog. Reference is made to the Mathematics Department section with respect to mathematics preparation and placement tests. For a student to graduate with a major in physics he must successfully complete the following courses: Physics 211, 212, 213, 214, 314, 315, 316, 321, 322, and fourteen or more hours of additional courses selected from the 300, 400, or 500 series in the department; and Math 112, 213, 334 or equivalent. Successful completion of these courses implies, for physics majors, attaining a grade of "C" or better.

### Astronomy

Physics majors whose primary interest is astronomy must take these same basic courses but they may consider including Physics 527 and 528 in their undergraduate program.

### Suggested Courses for Physics Major

**Language.** The student is strongly urged to achieve competence in a foreign language (German, Russian, or French) during his undergraduate career. He may do this by enrolling in a beginning course during his freshman or sophomore

year and following this up with additional course work or individual readings in the language. The availability of religion courses in foreign languages which count both toward the fulfillment of the religion requirements and the B.A. degree are particularly attractive in this respect. For example one can enroll in German 101, 102 as a freshman, Theology 236, 237 as a sophomore, History and Philosophy of Religion 451, 452, or Bible 301, 302 (German sections) as a junior. Also, certain courses which do double duty in providing language training and in fulfilling general education requirements are available in other areas of the University.

**Religion.** It is suggested that the student take advantage of the opportunity to replace a two-hour religion course during his junior or senior year by two hours of credit for devotional assembly.

**Mathematics.** Students in the sciences should take mathematics the first semester of the freshman year. The course with which one begins his training in mathematics is determined by the results of the mathematical placement test taken prior to registration. Normally the student will begin with Math 111 but superior mathematics preparation in high school may enable him to begin with Math 112. In the latter case he should follow the math sequence listed in parentheses in the following proposed program.

**Proposed Program.** In order to satisfy the general education requirement and at the same time obtain sufficient work in undergraduate physics for a career in physics, or to make the pursuit of graduate work profitable, the physics major must plan his program carefully. The following program is recommended for those who intend to pursue graduate work in some science or engineering field. It also provides an excellent preparation for students who plan to terminate their academic training with the bachelor's degree.

Freshman Year		Electives	
F	S		
Math 111, 112 .....	5	5	5
(Math 112, 113)			
Chemistry 111, 112 .....	4	3	3
English .....	3	3	3
Language .....	4	4	4
Religion .....	2	2	2
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Devotional assembly ....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Total Hours .....	19	18	18
Sophomore Year		Junior Year	
F	S	F	S
Math 213, 334 .....	5	3	3
(Math 334, 336)		3	4
Math 314 .....	3	Physics 316 .....	2
Physics 211, 213 .....	4	Physics 321, 322 .....	4
Physics 212, 214 .....	1	Religion .....	2
Religion .....	2	Electives .....	4
Physical education .....	$\frac{1}{2}$		5
Devotional assembly ....	$\frac{1}{2}$		
Health 130 .....	2		
Botany 101 or			
Zoology 105 .....	3		
		Total Hours .....	18
Senior Year		Total Hours	
F	S		
Math 631, 632 .....	3	18	18
(or other math elective)			
Physics 342, 441 .....	4		
Physics 431, 471 .....	3		
Physics 551, 552 .....	3		
Religion .....	2		
Electives .....	3		

**Note:** Of the general requirements, physical science, religion, English composition, health, 3 hours of biological science, and 3 hours of humanities and fine arts (satisfied by 8 hours of language) are specifically listed in this program. This leaves 16 hours of general education requirements to include in the 21 hours available for electives.

### Physics Minor

Any course in the Physics Department curriculum which is passed with a grade of "C" or better may be counted towards filling the 14-hour requirement

for a minor in physics. A recommended program for the physics minor is Physics 211, 212, 213, 214, 315 and 316.

### Lower Division Courses

- 100. Essentials of Physics.** (3:3:0) F.S.Su. Home Study also. (G-PS m) Staff  
An introductory course designed for students not majoring in the physical sciences. Basic concepts are treated from a non-technical point of view.
- 101. Concepts and Methods in Physics.** (2:4:0 for  $\frac{1}{2}$  semester) (G-PS m) Staff  
Genesis of selected physical concepts in their historical context designed for students whose interest in physics is cultural rather than practical. Fits physical science sequence with Chemistry 100 and Geology 101.
- 102. Introduction to Laboratory Physics.** (1:0:4 for  $\frac{1}{2}$  semester) (G-PS m) Staff  
Direct experience provided through simple physics laboratory exercises and extended by motion pictures showing experiments beyond the reach of student facilities.
- 105, 106. Technical Physics.** (3:2:3 ea.) F.S. (G-PS m) Prerequisite: completion of or concurrent registration in Math 111 or 121. Staff  
Introductory course in applied physics with special emphasis on industrial and technical applications. Topics include mechanics, heat, light, and sound.
- 127. Descriptive Astronomy—"The Solar System."** (3:3:0) F.S.Su. Home Study also. (G-PS m) Staff  
A non-mathematical presentation of our knowledge of the solar system. Frequent use is made of the observatory and planetarium.
- 128. Descriptive Astronomy—"The Stellar System."** (3:3:0) F.S. (G-PS m) Staff  
A non-mathematical presentation of our knowledge of the content and history of the universe. Physics 127 is not a prerequisite.
- 137. Weather and Climate.** (3:3:0) F.S.Su. Home Study also. (G-PS m) W. Hales  
The earth's atmosphere and problems associated with climate and weather forecasting.
- 177. Physics of Light and Photography.** (3:2:3) F.S.Su. Home Study also. (G-PS m) W. Hales  
Fundamentals of light phenomena with applications to photography.
- 201, 202. General College Physics.** (4:3:3) F.S. (G-PS m) Prerequisite: Math 111 or equivalent. Miller  
A general course with laboratory for students in pre-medical, pre-dental, and biological science programs.
- 211, 213. General Physics: Classical.** (4:4:0 ea.) F.S.Su. (G-PS m) Prerequisites: Math 112; completion of or concurrent registration in Math 213; and for physics, chemistry, and engineering majors, completion of or concurrent registration in Physics 212 (or 214). Staff  
Mechanics, heat, sound, light, electricity, and magnetism, for physical science and engineering majors. This course is a prerequisite for all specialized courses in physics.
- 212, 214. General Physics Laboratory.** (1:0:3 ea.) F.S.Su. (G-PS m) Prerequisite: completion of or concurrent registration in Physics 211 (or 213). Staff  
Experimental work to parallel Physics 211 (or 213).

### Upper Division Courses

Successful completion of Math 213, Physics 211 and 213 or their equivalents are prerequisite to all courses above 310. Successful completion of these courses implies, for physics majors, attaining a grade of "C" or better.

- 300. History and Philosophy of Physics.** (2:2:0) F.Su. (m) Prerequisites: Physics 211, 213, or 201, 202 with consent of instructor. Staff  
Historical background of physical science, emphasizing the development and significance of important concepts, methods, and theories.
- 303. Survey of Atomic and Nuclear Physics.** (3:3:0) F. (m) Prerequisites: Physics 201, 202 (or 211, 213). Staff  
Primarily for non-physical science majors. Elementary particle and radiation physics including atomic structure, spectra, X-rays, nuclear structure, nuclear processes, and applications.
- 315. General Physics: Atomic and Nuclear.** (3:3:0) F.S.Su. (m) Staff  
Fundamental particles, atomic and molecular structure, Bohr theory, spectra, X-rays, quantum effects, special relativity, radioactivity, nuclear forces and nuclear reactions.
- 316. Atomic and Nuclear Physics Laboratory.** (2:1:4) F.S.Su. (m) Prerequisite: completion of or concurrent registration in Physics 315. Staff  
Required of all physics majors. Experimental work in particle and radiation physics.
- 321, 322. Mechanics.** (4:4:0 ea.) F.S. (m) Dudley  
Methods of classical mechanics applied to equilibrium, particle motion, central forces, small oscillations, conservation principles, and rigid body dynamics, with an introduction to Lagrange's equations.
- 341, 342. Electricity and Magnetism.** (4:3:3 ea.) F.S. (m) Prerequisite: Math 314 or consent of instructor. Vanfleet  
Classical theory of electricity and magnetism developed from its experimental foundations. Electrostatics, magnetostatics, currents and their associated fields, circuit theory, and an introduction to Maxwell's equations.
- 381. Introductory Solid State Physics.** (3:3:0) F. (m) Prerequisites: Physics 211, 213, 315. Barnett  
The crystalline state, lattice vibrations and specific heats, dislocation theory, dielectrics, free electron theory, band theory, conductivity, semiconductors, magnetism.
- 431. Thermodynamics and Kinetic Theory.** (3:3:0) F. (m) Prerequisites: Physics 211, 213. M. Hill  
Classical thermodynamics with applications, introduction to kinetic theory, and classical and quantum statistical mechanics.
- 437. Meteorology.** (3:3:2) S. (m) Prerequisite: Physics 431. Staff  
Physical influences on weather and climate with emphasis on thermodynamics and hydrodynamics of the atmosphere. Weather analysis and forecasting by means of synoptic charts.
- 441. Electronics for Physicists.** (5:3:6) S. (m) Prerequisite: Physics 342. Dixon  
Fundamental concepts of electronics and basic circuitry with emphasis on the tools needed for specialized research in a variety of fields of physics.
- 471. Optics and Electromagnetic Theory.** (4:3:3) S. (m) Prerequisites: Physics 211, 213, 342; Math 334, or consent of instructor. Barnett, Eastmond  
Intermediate theoretical and experimental optics with introduction to the use of Maxwell's equations in the propagation, reflection, refraction, interference, and diffraction of electromagnetic waves.
- 497. Introduction to Research.** (1-3:0:2-6) Arr. (m) Staff

#### Advanced Undergraduate or Graduate Courses

- 511. Introduction to Theoretical Physics.** (3:3:0) Su. (m) Prerequisites: Math 213, 334. Staff  
Introduction to the basic principles of physics with emphasis on their mathematical formulation. Applications principally in mechanics and electrodynamics.

- 513. Special Topics in Contemporary Physics.** (1-3:1-3:0) Arr. (m) Prerequisite: consent of instructor. Staff  
Various contemporary topics in physics are treated.
- 527, 528. Introduction to Astrophysics.** (3:3:0 ea.) F.S. (Offered 1962-63 and alternate years) (m) McNamara  
The physics of stellar atmospheres.
- 551. Elements of Quantum Theory.** (3:3:0) F. (m) Prerequisites: Physics 315; Math 314, 334. Staff  
Basic course in modern theory of radiation and particle physics including elementary treatments of theory of relativity; quantum mechanics with spectroscopic applications; quantum statistics; solids.
- 552. The Atomic Nucleus.** (3:3:0) S. (m) Prerequisite: Physics 551. Staff  
Basic course in nuclear physics including description of nuclear properties; scattering theory, nuclear reactions; elementary theory of the nucleus.
- 561, 562. Fundamentals of Acoustics.** (3:3:0 ea.) F.S. (Offered 1962-63 and alternate years) (m) Staff  
Vibrating systems, transmission phenomena, theory of acoustical radiators, and applications of acoustics.
- 563, 564. Acoustical Measurements.** (2:2:0) F.S. (Offered 1962-63 and alternate years) (m) Prerequisites: completion of or concurrent registration in Physics 561, 562. Staff  
Selected experiments in acoustics.
- 591. Techniques in Experimental Physics.** (3:2:3) F. (m) Staff  
Modern methods in experimental physics with experience in basic shop and laboratory techniques applicable in research.

#### Graduate Courses

- 621. Dynamics.** (3:3:0) F. (m) Prerequisite: Physics 322. Staff
- 623. Mechanics of Continuous Media.** (3:3:0) S. (Offered 1963-64 and alternate years) (m) Prerequisite: Physics 621. Staff
- 625. Theory of Relativity.** (3:3:0) S. (Offered 1962-63 and alternate years) (m) Prerequisite: Physics 621. Staff
- 627, 628. Advanced Topics in Astrophysics.** (3:3:0 ea.) F.S. (Offered 1962-63 and alternate years) (m) Prerequisite: consent of instructor. McNamara
- 631. Advanced Thermodynamics and Kinetic Theory.** (3:3:0) F. (Offered 1963-64 and alternate years) (m) Decker
- 632. Statistical Mechanics.** (3:3:0) S. (Offered 1963-64 and alternate years) (m) Decker
- 641, 642. Mathematical Theory of Electricity and Magnetism.** (3:3:0 ea.) F.S. (m) Prerequisite: Physics 342. Nelson
- 651, 652. Quantum Mechanics.** (3:3:0 ea.) F.S. (Offered 1962-63 and alternate years) (m) Prerequisites: Physics 551, 621; Math 618. Gardner
- 655, 656. Nuclear Physics.** (3:3:0 ea.) F.S. (Offered 1963-64 and alternate years) (m) Prerequisite: Physics 552. Dixon
- 671. Atomic Spectroscopy.** (3:2:3) F. (Offered 1963-64 and alternate years) (m) Prerequisite: Physics 551 or consent of instructor. Eastmond
- 672. Molecular Spectroscopy.** (3:2:3) S. (Offered 1963-64 and alternate years) (m) Prerequisite: Physics 671. Eastmond
- 681, 682. Modern Theory of the Solid State.** (3:3:0 ea.) F.S. (Offered 1962-63 and alternate years) (m) Prerequisites: Physics 431, 551. Decker

691. 692. Seminar. (1:1:0) F.S. (m) Staff
697. Research for Master's Degree. (Arr.) Arr. (m) Staff
699. Thesis for Master's Degree. (1-6:Arr.:Arr.) (m) Staff
- 711, 712, 713. Advanced Topics in Physics. (1-3:1-3:0) Arr. (m) Prerequisite:  
consent of instructor. Staff  
Course content varies. Special topics in theoretical and experimental  
physics are treated.
- 751, 752. Advanced Quantum Theory. (3:3:0 ea.) F.S. (Offered 1963-64 and  
alternate years) (m) Prerequisite: Physics 652. Staff
- 791, 792. Seminar. (1:1:0) F.S. (m) Staff
797. Research for Ph.D. Degree. (Arr.) Arr. (m) Staff
799. Dissertation for Ph.D. Degree. (Arr.) Arr. (m) Staff

## Political Science



<b>Professor:</b>	Grow.
<b>Associate Professors:</b>	Cannon (chairman, 358 McKay), Mabey, Melville, Reeder.
<b>Assistant Professor:</b>	Morrell.
<b>Instructors:</b>	Hart, Hillam.

### Requirements for a Major in Political Science

A major in political science requires the satisfactory completion of at least 30 hours of work in this field, distributed as follows:

Required courses: Political Science 110, 111, 112 or 115, and 300; or Political Science 210, 212, and 300.

Elective courses: At least one course from each of the following six main areas plus additional courses to a minimum total of 30 hours:

1. Political theory—301, 303, 590, 601, 605.
2. Politics—310, 320, 322, 610.
3. Public administration—330, 501, 502, 504, 510, 532, 535, 630.
4. Comparative government—350, 352, 355, 557, 560, 650, 651.
5. International law and relations—370, 565, 571, 572, 575, 580, 665, 675.
6. Public law—396, 397, 575, 590, 593, 595, 690, 696.

It is recommended that the major in political science include History 120 and 121 in his basic program.

Political science lower division courses should be completed by the end of the sophomore year. Courses and sequences other than those required should be selected in consultation with the adviser and the department chairman who will also advise the student in the selection of his minor field.

A comprehensive examination may be given to all majors in the second semester of the senior year.

Political science is designated as a "composite major" in social science. (See College of Education.)

A minor in political science requires 14 hours. Since minors have varied objectives, flexibility is permitted in selecting courses which will be most helpful to each student. The courses should be chosen in consultation with a political science adviser.

### American History and Government Requirement

In satisfying this requirement for graduation, the student majoring in political science is advised to take both History 120 and 121. If this cannot be arranged, he should take at least one of the following combinations:

- Political Science 110 and History 121.
- Political Science 110 and History 274.

History 170 is **not** recommended for majors in political science as the means of fulfilling this graduation requirement.

### Lower Division Courses

- 105. Current Affairs.** (1:1:0) F.S. (G-SS m) Staff  
Survey of current events with special attention to historical background and present implication in economics, sociology, politics, and international relations.
- 110. American Government.** (3:3:0) F.S. Home Study also. (G-SS m) Staff  
Origin and growth of federal constitution; constitutional rights of citizens; study of executive, legislative, and judicial departments; and the major critical policy decisions facing government.
- 111. State and Local Governments.** (3:3:0) F.S. (G-SS m) Staff  
Relation of state to the national government; functions and powers of states; types of municipal government and their growth and operation.
- 112. Foreign Governments.** (3:3:0) F.S. Home Study also. (G-SS m) Staff  
General study of selected European, Asiatic, and Latin-American governments; their development, organization, administration, and politics.
- 115. Introduction to International Relations.** (3:3:0) F.S. Home Study also. (G-SS m) Staff  
Survey of basic forces, practices, and institutions with special attention to foreign policies of major powers and problem areas in international politics.
- 210. American System of Government.** (5:5:0) F.S. (G-SS m) Staff  
Limited to participants in the Honors Program.  
The American system of government including operations of federal, state, and local governmental structures.
- 212. Comparative Governments and International Relations.** (5:5:0) F.S. (G-SS m) Staff  
Limited to participants in the Honors Program. Selected foreign governments and introduction to international relations.

### Upper Division Courses

- 300. Research and Writing in Political Science.** (3:2:1) F.S. (m) Staff  
Sources, materials, and methods of research and writing in political science. Required of all majors in political science. Should be taken sophomore or junior year.
- 301. The Development of Political Thought.** (3:3:0) F. (m) Staff  
History of political thought. Socrates, Plato, Aristotle, Epicureans, Cynics, Stoics, Cicero. Early and medieval Christian thinkers: Machiavelli, Hobbes, and others, to Locke.
- 303. Modern Western Political Thought.** (3:3:0) S. (m) Staff  
Modern and contemporary political thought, including development and criticism of liberal, socialist, communist, fascist, and conservative doctrines.
- 306. American Political Thought.** (2:2:0) S. (m) Melville  
American political ideas from the colonial period to the present, with an analysis of their influence upon development of American history and government.
- 310. Political Parties, Pressure Groups, and Public Opinion in the U.S.** (5:5:0) F. (m) Staff  
Organization and methods of action of political parties and pressure groups. The formulation and determination of public opinion.

- 320. American Legislative System.** (2:2:0) S. (m) Cannon  
Structure and organization of congressional, state, and city legislative bodies; nature of business transacted; influences acting upon such bodies; parliamentary procedure.
- 322. Contemporary Problems.** (2:2:0) F. (m) Staff  
Selected topics which involve the formulation of American public policy in the areas of economics, sociology, politics, and international relations.
- 330. Introduction to Public Administration.** (3:3:0) F.S. (m) Staff  
Organization and operation of government. Relationship of administration to other branches of government; types of control over administration; central and local government.
- 350. Government of the Soviet Union and Eastern Europe.** (3:3:0) F. (m) Mabey, Morrell  
Government of the U.S.S.R. and other eastern European countries, their political institutions and philosophies.
- 352. Government and Politics of East Asia.** (3:3:0) S. (m) Hyer  
Analysis of traditional Asian governmental institutions in their historical context with emphasis on the structure and dynamics of modern Far Eastern politics.
- 355. Government and Politics of United Kingdom and the Commonwealth.** (3:3:0) S. (m) Staff  
Development of the British Constitution; examination of growth of cabinet government; the Crown, Parliament, Civil Service; local and governmental administration; English judicial system, the commonwealth.
- 370. International Relations.** (3:3:0) F. (m) Staff  
International relations in the contemporary world. Development of the modern state system, problems of international relations, and emergency of international law and government.
- 396. Constitutional Law of the U.S. I.** (3:3:0) F. (m) Prerequisite: Political Science 110. Reeder  
American federal system.
- 397. Constitutional Law in the U.S. II.** (3:3:0) S. (m) Reeder  
Fundamental rights and immunities.
- 498. Directed Readings in Political Science.** (1-2:0:1-2) F.S. (m) Staff

**This course also counts in political science:**

**Geography 441. Political Geography.** (3:3:0) (m)

#### Advanced Undergraduate or Graduate Courses

- 501. City Planning.** (3:3:0) S. (m) Recommended: Political Science 330; Geography 522; Sociology 423. Staff  
Basic problems and techniques involved in city planning.
- 502. Public Works and Safety Administration.** (4:4:0) F. (m) Recommended: Political Science 330; any two of Sociology 380, 383, 386; Psychology 350. Staff  
Basic factors underlying the efficient operation of police and fire and public works departments. Sociological and psychological problems involved; organization patterns; public relations; budget, etc.
- 504. Budget and Fiscal Administration.** (3:3:0) F. (m) Recommended: Accounting 201. Staff  
The principles involved in governmental budget and fiscal administration. Emphasis is given at national, state, and municipal levels.

- 510. International Project Administration.** (3:3:0) (Offered alternate years) (m)  
Recommended: Political Science 110, 115, 330; History 120, 121.  
The administration of United States programs abroad. Problems faced, living conditions, techniques of administration, approaches to education, etc.
- 532. Personnel Administration.** (2:2:0) F. (m) Staff  
Treatment of processes, procedures, controls, and problems of personnel and fiscal administration in executive branches of federal, state, and local governments.
- 535. Municipal Government and Administration.** (3:3:0) S. (m) Grow  
Growth, development, and organization of cities; relationship of cities to other governments; problems and activities of modern cities.
- 557. Government and History of Canada.** (3:3:0) S. (m) Grow  
Growth and development of Canada and the operation of her government.
- 560. Governments of Latin-America.** (2:2:0) S. (m) Staff  
Growth and political development of countries in the Latin-American area with special reference to Argentina, Brazil, and Mexico.
- 565. International Organization.** (3:3:0) F. (m) Staff  
History and structure of international organizations, with particular emphasis on the United Nations organization and its specialized agencies.
- 571. Development of American Foreign Policy.** (3:3:0) S. (m) Staff  
Role of the United States in international affairs from colonial times to the present.
- 572. Soviet Foreign Policy.** (2:2:0) S. (m) Mabey, Morrell  
Marxist-Leninist concepts of international politics and their practical application including such issues as the Communist International and "peaceful coexistence."
- 575. International Law.** (5:5:0) S. (m) Reeder  
Nature and function of international law; recognition, succession, jurisdiction, rights, and immunities of states; nationality and jurisdiction over nationals.
- 580. International Relations of the Far East.** (3:3:0) S. (m) Recommended: Political Science 115. Hillam  
International relations of Asia with emphasis on the problems of imperialism, colonialism, nationalism, and communism.
- 590. Jurisprudence.** (3:3:0) S. (m) Staff
- 591. Anglo-American Legal Institutions.** (3:3:0) S. (m) Staff  
Origins and development of common law and equity, the writ system, court systems, basic legal terms, the anatomy of a law suit.  
Problem approach to ancient and modern legal philosophies, with special attention given the nature of justice and the relation of law to morality.
- 593. Administrative Law of the U.S.** (3:3:0) F. (m) Reeder  
Legal setting for administrative bodies and judicial control of administrative action. Cases in administrative law read and discussed.
- 595. American Constitutional History.** (3:3:0) F. (m) Prerequisite: Political Science 110. Melville  
History and development of the Constitution; study of its fundamental provisions, their interpretations and application in the functioning of the American system of government.

These courses also count in political science:

- Geography 522. Urban Geography.** (2:2:0) (m)  
**Economics 575. Government Finance.** (3:3:0) (m)  
**Economics 576. Government and Business.** (3:3:0) (m)

## Graduate Courses

- |  |        |
|--|--------|
| 601. Modern Political Philosophy. (2:2:0) S. (Offered alternate years) (m)       | Staff  |
| 605. Roots of American Democracy. (2:2:0) F. (Offered alternate years) (m)       | Staff  |
| 610. American Political Problems. (2:2:0) F. (Offered alternate years) (m)       | Staff  |
| 630. Comparative Public Administration. (3:3:0) S. (Offered alternate years) (m) | Grow   |
| 650. Democratic Governments. (2:2:0) F. (Offered alternate years) (m)            | Staff  |
| 651. Totalitarian Governments. (2:2:0) S. (m)                                    | Staff  |
| 665. International Organization in the 20th Century. (2:2:0) S. (m)              | Staff  |
| 670. International Relations in the 20th Century. (2:2:0) S. (m)                 | Staff  |
| 675. Modern International Law. (2:2:0) S. (m)                                    | Reeder |
| 690. Supreme Court of the United States. (2:2:0) F. (m)                          | Staff  |
| 696. Constitutional Law in the 20th Century. (2:2:0) F. (m)                      | Reeder |
| 698. Directed Readings in Political Science. (1-2:0:1-2) F.S. (m)                | Staff  |
| 699. Thesis for Master's Degree. (2-4:0:2-4) F.S. (m)                            | Staff  |

**Professors:** Howell (chairman, 1230 SFLC),  
Allen, Robinson, Taylor.

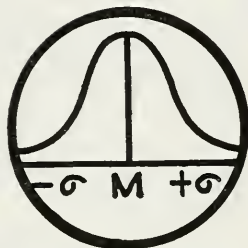
**Associate  
Professor:** Hardy.

**Assistant  
Professors:** Bennion, Cooper, Daniels, Johnson,  
Smith.

**Instructor:** Budge.

**Special  
Instructor:** Lee.

## Psychology



The study of psychology should be of value to the general student in the following ways: (1) provide him with a scientific understanding, for its own sake, of behavior and experience; (2) develop insights into his own behavior and that of others, useful in meeting everyday problems of life; (3) assist in cultivating more careful habits of thought concerning human behavior; and (4) enhance his appreciation of people.

The field of psychology offers careers in college teaching (and high school to a lesser degree); various counseling services in elementary and secondary schools; clinical service in clinics, institutions, and private practice; various psychological services in business, industry, and government; research in human engineering and most other areas. Most professional fields of psychology require advanced degrees, but there are a limited number of opportunities for those with bachelor's degrees, such as high school teaching, probation and junior level social work, employment interviewing and testing, and junior level psychological testing (psychometry).

The study of psychology also has particular value to students preparing for teaching and counseling of any kind, social work, parenthood, law, medicine, various branches of business, and public administration. Psychology may also be of value in any other specialization concerned with man and his works.

There are two programs for a psychology major: a pre-professional major and a general culture major. The pre-professional major is intended for students who plan to continue with psychology, or certain related fields, as a prospective profession. Students who intend to terminate their formal education with a bachelor's degree would not ordinarily choose this plan. Those who plan to continue with graduate work in psychology or closely related fields (medicine, counseling, school psychology, psychiatric social work, for example) and who have by the beginning of the junior year an overall grade-point average of 3.00 (with a 3.25 in psychology courses), should choose the pre-professional major. A total of 30 semester hours, including Psychology 111, 360, 365, 370, 374, 378 and one seminar will be required for this major. A maximum of 6 of the 30 hours may be chosen from a selected list of courses in other departments, with the consent of the student's adviser. Courses listed as soc-psych (social psychology) may be used for credit either in sociology or psychology, but not in both.

The general culture major is designed for students who plan to terminate their formal education at the bachelor's level or those who anticipate entering an advanced field not closely related to professional psychology. The course requirements for the general culture major consist of 30 semester hours, including Psychology 111, 185, 311 (or 360 and 365), 320 or 321, 357 or 350, 378, 450, 460 and one seminar. The remaining hours may be chosen from any other psychology

courses or a maximum of 6 of the 30 hours may be chosen from a selected list of courses in other departments with the consent of the student's adviser. Courses listed as soc-psych (social psychology) may be used for credit either in sociology or psychology, but not in both.

Students planning to terminate with a bachelor's degree should choose a minor area which will broaden their employment opportunities. Suggested areas are secretarial work, various branches of business, recreation, and social work.

To fulfill the additional general education requirements for the baccalaureate degree, a major in psychology may take either twelve hours of a foreign language or nine hours from those courses which have been approved as fulfilling the mathematics, statistics, logic and science courses. If the student elects the latter option, the course work must come from at least two different departments.

For a minor in psychology, the following program is recommended: Psychology 111, 311, and a minimum of eight additional hours chosen from the undergraduate and 500 series courses which are designated with an (m) as fulfilling the minor requirements.

The following graduate programs are offered: a master's degree in general psychology; a master's degree for school psychologists; a Ph.D. in counseling psychology, given in collaboration with the Graduate Department of Education; a Ph.D. in clinical psychology; and a Ph.D. in general psychology. See the Graduate School Catalog for details on these programs.

As part of the training of graduate students, a psychological clinic is maintained by the Psychology Department for the diagnosis and treatment of behavioral and emotional disorders in children and adults. A limited number of selected individuals (other than University students) will be accepted depending on the training needs of the department.

#### Lower Division Courses

- 111. General Psychology.** (3:3:0) F.S.Su. (G-SS m) Staff  
Foundation course covering essentials of modern scientific psychology.  
Prerequisite for most upper division psychology classes.

- 185. Physiological Psychology.** (3:3:0) F. (m) Prerequisite: Psychology 111. Staff  
Examination of the physiological foundations of behavior and their relation to behavior phenomena. Designed as a second course in psychology to follow Psychology 111.

#### Upper Division Courses

- 311. Advanced General Psychology.** (3:3:0) F.S. (m) Prerequisite: Psychology 111. Staff  
Intensive survey of the general field with special emphasis on topics not covered in detail in Psychology 111. Intended for minors or other advanced students not planning to take Psychology 360, 365, and 378.

- 320. Psychology of Childhood.** (2:2:0) F.S. (G-SS m) Prerequisite: Psychology 111. Budge, Taylor  
Critical presentation of research on physical, mental, emotional, and social development of the child and his interests, values, and motivations. Primarily for majors and minors.

- 321. Psychology of Adolescence.** (2:2:0) F.S. (G-SS m) Prerequisite: Psychology 111. Budge, Taylor

Development and maturation during adolescence, with special attention to research methodology. Programs of sex-social adjustment, independence, vocational adjustment, and emotional and social maturing in our society.

- 322. Psychology of Adult Life.** (2:2:0) S. (G-SS m) Prerequisite: Psychology 111. Taylor  
Physiological, intellectual, personality, and motivational changes associated with adulthood; geriatric and gerontological emphasis.

330. **Industrial Psychology.** (2:2:0) F.S. (m) Prerequisite: Psychology 111.  
Hardy, Smith  
Special application of psychology in human relations program for management. Important issues in relation to motivation, morale, safety, efficiency, etc.
336. **Personnel Psychology: Theory and Practice.** (4:2:6) F.S. (m) Prerequisite: Psychology 111.  
Lee  
Employment interviewing techniques; validation of psychological tests, biographical questionnaires. In cooperation with State Employment Service, supervised practicum in personnel testing, interviewing, job analysis, recruitment, placement.
340. **Mental Hygiene.** (2:2:0) F.S. (m) Prerequisite: Psychology 111.  
Budge  
Intended to yield insight into prevention and amelioration of mental and personal difficulties. Important for prospective parents, teachers, and social workers.
350. **(Soc-Psych) Introduction to Social Psychology.** (3:3:0) F.S. (G-SS m) Prerequisite: Psychology 111 or Sociology 111. Daniels, Dyer, Hardy, Smith  
May be used for credit either in psychology or sociology, but not in both. Nature of social influence; socialization; concepts of norm, role status; development of beliefs and attitudes; leadership; group processes. Applications to prejudice, persuasion, social control.
357. **(Soc-Psych) Group Relations and Leadership.** (3:2:2) F.S. (m) Prerequisite: Psychology 111 or Sociology 111.  
Dyer, Hardy  
May be used for credit either in psychology or sociology, but not in both. Designed to help the individual participate effectively in groups and to assist leaders to become efficient in role performance.
360. **Cognitive Processes.** (3:3:0) F.S. Prerequisite: Psychology 111.  
Allen, Daniels  
Core course for majors and other advanced students; sensation; perception; thinking relationships to other psychological processes.
365. **Motivation.** (3:3:0) F.S. Prerequisite: Psychology 111.  
Cooper, Hardy  
Core course for majors and other advanced students. Theories of motivation; research methods and results; bases of motivation; emotions and motivation; measuring motivation; motivation as related to learning and cognitive processes; practical implications.
370. **Elementary Statistics.** (4:4:0) F.S. (m) Prerequisite: Psychology 111. Staff  
Introduction to descriptive and inferential statistics. Measures of central tendency, variability, correlation; sampling theory, tests of significance; reliability and validity.
374. **Experimental Psychology.** (3:1:4) F.S. (m) Prerequisites: Psychology 111, 370 or equivalent.  
Allen  
Psychological methodology and its application to fields of sensation, perception, emotion, learning, motivation, and individual differences; conducting and reporting of representative experiments.
378. **Abilities.** (3:3:0) F.S. (m) Prerequisite: Psychology 111.  
Cooper, Howell, Taylor  
Core course for majors, minors, and other advanced students. Statistical methodology of assessing and interpreting abilities; tests of abilities and their purposes; group differences of abilities.
445. **Exceptional Children.** (2:2:0) S. (m) Prerequisite: Psychology 111.  
Allen, Taylor  
Diagnosis of exceptionalities and their psychological significance; gifted, mentally retarded, physically and emotionally handicapped children; treatment measures. Survey course for students interested in management of children.

- 450. Personality Development.** (3:3:0) F.S.Su. (m) Prerequisite: Psychology 111.  
Daniels, Howell, Taylor  
Development and organization of personality structure; interaction of biological, psychological, and cultural determinants; measurement of personality.
- 454. Psychology of Religion.** (2:2:0) S. (m) Prerequisite: Psychology 111.  
Allen, Taylor  
Classification of religious behavior and experience; sources of religious motivation; religion and the growth process; personality and religious choices; mental hygiene assets and hazards in religion.
- 460. Principles of Learning.** (3:3:0) F.S. (m) Prerequisite: Psychology 111.  
Allen, Johnson, Taylor  
A comprehensive study of the principles of learning; representative experiments; types of learning; principles of effective learning; implications for clinical, education, and social fields.
- 491, 492, 493. Psychology Seminar.** (1:1:0) F.S.Su. (m) Staff  
One seminar required of psychology majors. Reports and discussions of special topics and current psychological literature.
- 495. Independent Readings.** (1-2:Arr.:Arr.) F.S.Su. Prerequisite: consent of instructor.

#### Advanced Undergraduate or Graduate Courses

- 510. The Psychology of Aesthetics.** (2:2:0) S. (m) Prerequisite: Psychology 111.  
Taylor  
The arts of perceptual stimuli; the nature of artistic creativity; psychological symbolism expressed in the arts; the artist as a person.
- 540. Abnormal Psychology.** (3:3:2) S.Su. (m) Prerequisites: Psychology 111, five additional hours in psychology, and consent of instructor.  
Allen, Howell  
Dynamics of maladjustment; implications for normal behavior; review of major and minor psychological disorders; modern therapeutic procedures; field work at Utah State Hospital.
- 550. Personality Theory.** (3:3:0) F.S.Su. (m) Prerequisites: Psychology 111, 450, and five additional hours in psychology.  
Allen, Howell, Smith, Taylor  
A critical review of the contemporary theories of personality that have been developed within the framework of major psychological systems.
- 555. (Soc-Psych) Group Dynamics.** (2:2:0) F. (m) Prerequisite: Sociology-Psychology 350.  
Hardy  
May be used for credit either in psychology or sociology, but not in both. Research and theories in group dynamics.
- 560. Learning Theory.** (3:3:0) S. (m) Prerequisites: Psychology 111, 460, and 5 additional hours in psychology.  
Allen, Taylor  
A critical review of current theories of learning and persistent problems.
- 574. Advanced Experimental Psychology.** (2:1:5) S. (m) Prerequisites: Psychology 111, 374, or equivalent.  
Allen  
Principles of instrumentation; varieties of experimental designs; nature of experimental controls. Gives experience in planning, conducting, and reporting original exploratory experiments.
- 580. Comparative Psychology.** (3:3:0) F. (m) Prerequisite: Psychology 111.  
Staff  
Survey of methods and results of research on animal learning, innate behavior, motivation, individual differences, social behavior, abnormal behavior; correlation of structure with function.

585. **Advanced Physiological Psychology.** (3:3:0) S. (m) Prerequisite: Psychology 111. Staff  
 Critical study of physiological processes and psychological functions; physiological mechanisms underlying behavioral processes, including sensation, emotion, sleep and activity, motivation, and learning.
598. **Independent Research.** (1-3:0:2-6) F.S. Staff

### Graduate Courses

606. **Psychology of Music.** (3:3:0) S. Prerequisites: Psychology 111 and Physics 111 or equivalent. Taylor  
 Designed for and required of graduate students majoring in music education. Critical examination of psychophysical functions in music; measurement of auditory thresholds; problem of absolute pitch; time judgments as related to music; nature and measurements of sensory-motor skills; measurement of musical aptitude; personality and emotional factors as related to musical production and appreciation; recent applications of music in therapy; musical creativity as a psychological problem; representative research problems, methods, and results.
610. **Systematic Psychology I: History and Contemporary Thought.** (4:4:0) F. Prerequisite: undergraduate core courses. Howell
611. **Systematic Psychology II: Psychology Theory.** (4:4:0) S. Prerequisite: Psychology 610. Howell, Taylor
626. **Mental Deficiency.** (2:2:0) F. Prerequisite: Psychology 378 or equivalent. Allen
627. **Gifted Children.** (1:1:0) S. Prerequisite: Psychology 378. Staff
628. **Psychology of the Physically Handicapped.** (2:2:0) F. Prerequisite: Psychology 378. Taylor
640. **Individual Test Practice.** (5:3:8) S. Prerequisite: Psychology 378. Bennion, Howell, Taylor
642. **Special Clinical Testing.** (2:0:6) S. Prerequisite: Psychology 640. Bennion
651. **Problems in Psychopathology.** (2:2:0) S. Prerequisites: Psychology 540 and consent of instructor. Bennion, Howell
655. **Psychosomatic Problems.** (2:2:0) F. Prerequisites: Psychology 540 and consent of instructor. Trunnell
670. **Advanced Statistics I.** (3:3:0) F. Prerequisite: Psychology 370. Staff
671. **Advanced Statistics II.** (3:3:0) S. Prerequisite: Psychology 670. Staff
675. **Experimental Psychodynamics.** (2:1:4) F. Prerequisites: undergraduate core courses and consent of instructor. Staff
680. **Introduction to Psychotherapy.** (3:3:0) S. Prerequisites: undergraduate core courses and consent of instructor. Bennion, Robinson
690. **Seminar: Research Problems.** (2:2:0) F. Staff
695. **Independent Readings.** (1-2:Arr.:Arr.) F.S.Su. Staff
699. **Thesis for Master's Degree.** (1-6:Arr.:Arr.) F.S.Su. Staff
740. **Introduction to Projective Techniques.** (2:2:0) F. Prerequisites: Psychology 550 and 640. Taylor
741. **Rorschach Test Practice.** (3:1:8) S. Prerequisite: Psychology 740. Bennion, Howell, Robinson

- 743. Practicum: Diagnostic Testing.** (2:0:6) S. Prerequisite: Psychology 741.  
Bennion, Howell
- 747. Internship in Clinical Testing.** (2-4:1:5-11) F.S.Su. Prerequisite: Psychology 743.  
Bennion, Howell
- 748. Internship in Clinical Testing.** (2-4:1:5-11) F.S.Su. Prerequisite: Psychology 747.  
Bennion, Howell  
Continuation of Psychology 747.
- 780. Individual Psychotherapy: Practicum.** (3:1:8) F.Su. Prerequisite: Psychology 680.  
Bennion, Howell
- 781. Individual Psychotherapy: Practicum.** (3:1:8) S.  
Bennion, Howell  
Continuation of Psychology 780.
- 782. Group Therapy: Theory and Practice.** (3:1:8) S. Prerequisite: Psychology 680.  
Staff
- 783. Play Therapy: Theory and Practice.** (3:3:3) S. Prerequisites: undergraduate core courses and consent of instructor.  
Taylor
- 790. Seminar: Clinical Problems of Genetic Psychology.** (1:1:0) S. Prerequisite: consent of instructor.  
Taylor
- 791. Seminar: Personality.** (1:1:0) F. Prerequisite: consent of instructor. Staff
- 792. Seminar: Social Psychology.** (2:2:0) S. Prerequisites: consent of instructor, Sociology 350 or Psychology 350.  
Daniels, Smith
- 793. Seminar: Learning.** (1:1:0) S. Prerequisite: consent of instructor. Staff
- 797, 798. Independent Research.** (1-4:0:3-12) F.S. Prerequisite: consent of instructor.  
Staff
- 799. Ph.D. Dissertation.** (Arr.) F.S.Su. Staff

**Professors:** I. Heaton (chairman, 226 SFH),  
Hart, Hartvigen, Kimball.

## Recreation

**Associate  
Professors:** Packer.

**Assistant  
Professors:** Hafen, A. Heaton.

**Instructors:** deHoyos, Naylor.



A student interested in this field may complete courses for a recreation major, a minor, or a composite major. He may also take specified recreation courses to fill certain general education requirements, and he may register for recreation courses on an elective basis.

### Recommended Courses for Majors

Freshman Year	Hours
Devotional assembly .....	1
Forum assembly .....	1
Physical Education 190, 191 .....	0
Physical Education 180, 182 ....	1
Religion 121, 122 .....	4
English .....	6
Health 121, 130 .....	4
General education* .....	9
Recreation 123 .....	1
Electives .....	6
<b>Total Hours .....</b>	<b>33</b>

Sophomore Year	Hours
Devotional assembly .....	1
Forum assembly .....	1
Physical Education 290, 291 .....	0
Physical Education 280, 281 and electives .....	3
Religion .....	4
History .....	3
General education* .....	12
Music 102 .....	2
H.D.F.R. 210 .....	3
Electives .....	4
<b>Total Hours .....</b>	<b>33</b>

Junior Year	Hours
Devotional assembly .....	1
Forum assembly .....	1
Physical Education 390, 391 .....	0
Physical Education 376 and electives .....	3
Religion 365 and electives .....	4
General education* .....	4
Recreation 301, 337 .....	4
Recreation 387, 388 .....	4
Crafts .....	4
Electives .....	7
<b>Total Hours .....</b>	<b>32</b>

Senior Year	Hours
Devotional assembly .....	1
Forum assembly .....	1
Physical Education 490, 491 .....	0
Physical Education 514 and electives .....	3
Religion .....	2
Recreation 371, 502 or 503 .....	4
Recreation 505, 507, 579 .....	9
Major electives** .....	4
Electives .....	8
<b>Total Hours .....</b>	<b>32</b>

\*General education courses should include: Botany 101, Zoology 261, geology, physics, Psychology 111, and Sociology 111 or 112.

\*\*Major electives should be selected from: Political Science 111, 130; Sociology 449; Psychology 357; Speech 305.

## Recreation Minor

Students minoring in recreation should take the following courses: Recreation 123, 301, 337, 371, 387, 388, 505, and 2 hours of approved electives.

## Seasonal Intramural Participation

Students are encouraged to participate in the following intramural activities on a non-credit basis. These activities are conducted afternoons, evenings, and on Saturdays.

Autumn	Winter	Spring
Badminton	Basketball	Archery
Cross country run (Turkey trot)	Bowling	Badminton
Flag football	Boxing	Bicycle race
Golf	Checkers	Golf
Handball	Chess	Handball
Horseshoes	Fencing	Horseshoes
Table tennis	Gymnastics	Softball
Tennis	Ice skating	Swimming
Volleyball	Paddleball	Table tennis
	Skiing	Tennis
	Table tennis	Track and field
	Wrestling	

## Lower Division Courses

- 85, 86. Precision Dance Drill. (0:0:3) F.S. Parry
123. Skills and Techniques for Outdoor Recreation. (1:0:3) S. (m) Staff
- These courses also count in recreation:
- Art 256. Design in Plastic Art Media. (2:4:0)
- Art 263. Design in Crafts. (2:4:0) (m)
- Health 121. First Aid. (2:2:0)
- H.D.F.R. 210. Child Development. (3:3:1)
- Industrial Education 160. Recreational Handicrafts. (2:1:3)
- Industrial Education 260. Crafts. (3:1:5)
- Music 102. Music Fundamentals and Skills for Classroom Teachers. (2:2:1) (m)
- Physical education—any 4 hours of activity courses numbered from 101 to 286. (m)
- Physics 177. Physics of Light and Photography. (3:2:3)
- Sociology 257. Group Relations and Leadership. (2:2:0)
- Youth Leadership 172. Cub Leadership. (2:2:1) (m)
- Youth Leadership 173. Boy Scout Leadership. (2:2:1) (m)
- Youth Leadership 174. Explorer Leadership. (2:2:1) (m)

## Upper Division Courses

301. Introduction to Recreation. (2:2:0) F.S.Su. (m) I. Heaton
337. Philosophy of Recreation. (2:2:0) F.S.Su. (G-HA m) A. Heaton, I. Heaton
371. Planning for Family and Neighborhood Recreation. (2:2:0) S.Su. (m) A. Heaton
387. Planning for Social Recreation. (2:2:0) F.S.Su. (m) A. Heaton
388. Leadership in Church Dance. (2:2:0) F.S.Su. (m) A. Heaton
- Designed to give experience and training in dance programs for community, school, and particularly church recreation leaders.

These courses also count in recreation:

- Industrial Education 360. Crafts. (3:1:5)

- Education 324. Arts and Crafts for Elementary Teachers. (2:2:1) (m)  
 Education 322. Arts and Crafts for Early Childhood. (2:2:1)  
 Education 406. Teaching Materials Laboratory (Audio-Visual Aids). (2:2:1) (m)  
 Physical Education 376. Physical Education for Teachers of Intermediate Grades.  
 Religion 365. Applying Gospel Principles in Scouting. (2:2:0) (m)  
 Sociology 383. Juvenile Delinquency. (2:2:0)  
 Sociology 449. Community Organization, Action, and Planning. (2:2:0) (m)  
 Speech and Dramatic Arts 305. Discussion and Conference Leadership. (2:3:0)  
 Speech and Dramatic Arts 412. Religious Drama. (2:2:0)  
 Youth Leadership 302. Summer Camp Administration. (1:Arr.:full summer) (m)  
 Youth Leadership 491. Conference Planning Technique. (1:1:1) (m)

#### Advanced Undergraduate or Graduate Courses

502. Camping Education. (2:2:0) S.Su. (m) Packer  
 503. Administration of School and Community Camps. (2:2:0) S. (m) Packer  
 Objectives and problems involved in establishing community and school camps. Best practices dealing with location, safety, health, and program of activity are thoroughly analyzed.  
 505. Administration of Community Recreation. (3:3:0) S.Su. (m) I. Heaton  
 Problems peculiar to the organization and administration of a community recreation program including objectives, legal aspects, facilities, personnel, activities, budgeting, and public relations.  
 507. Administration of Playgrounds and Community Centers. (2:2:0) S.Su. Hafen  
 579. Directed Leadership in Recreation. (2-6:1:6-18) F.S.Su. Prerequisite: consent of department chairman. I. Heaton  
 Supervised experience in public and private recreation programs.  
 583. Workshop in Recreation Dance. (2:2:0) S.Su. A. Heaton

These courses also count in recreation:

- Journalism 561. Public Relations. (3:3:0)  
 Physical Education 514. Organization and Administration of Intramural Sports. (2:2:0)  
 Physical Education 571. Teaching Progression in Team Sports—Men. (2:1:2)  
 Physical Education 572. Teaching Progression in Team Sports—Women. (2:1:2)  
 Political Science 535. Municipal Government and Administration. (3:3:0)

#### Graduate Courses

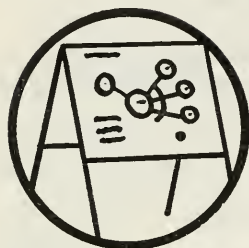
609. The Recreation Program. (2:2:0) F.Su. I. Heaton  
 694. Seminar in Readings. (2:2:0) F.S.Su. Hartvigsen  
 695. Seminar in Community-School Recreation. (2:2:0) F.S. I. Heaton  
 696. Seminar in Problems in Recreation. (1:1:0) S. I. Heaton  
 698. Field Projects. (1-4:2-5:0) F.S.Su. I. Heaton  
 699. Thesis for Master's Degree. (1-6:1-5:0) F.S.Su. I. Heaton

These courses also count in recreation:

- Physical Education 691. Seminar in Administration. (3:3:0)  
 Physical Education 603. Planning Facilities. (2:2:0)  
 Physical Education 692. Research Methods in Physical Education. (3:3:0)  
 Physical Education 696. Seminar in Problems. (1:1:0)

## Religious Education

**Professors:** Riddle (chairman, 120 S), Belnap, Berrett.



An undergraduate major or minor is not offered in this department. A graduate major or minor is offered at the master's level, and a minor at the doctoral level. (See section on College of Religious Instruction.)

### Upper Division Course

- 371. Teaching the Scriptures.** (2:2:0) F.S. Prerequisite: consent of instructor.  
Anderson
- Designed for prospective seminary teachers.

### Advanced Undergraduate or Graduate Courses

- 570, 571. Methods of Teaching Religion in the Secondary School.** (2:5:0 ea.)  
Su. 1964. Berrett, Staff
- 572, 573, 574. Lectures in Theology.** (1:4:0: ea.) Su. 1964. Berrett, Staff
- This course also counts in religious education:
- Theology 530. L.D.S. Theology.** (2:2:0)

### Graduate Courses

- 661. Problems of Old Testament Teaching.** (2:2:0) F. (2:5:0) Su. Staff
- 662. Problems of New Testament Teaching.** (2:2:0) S. (2:5:0) Su. Turner
- 663. Problems of L.D.S. Church History Teaching.** (2:2:0) F. (2:5:0) Su. Clark
- 664. Problems of Book of Mormon Teaching.** (2:2:0) F. (2:5:0) S.Su. Ludlow
- 670. Survey of Religious Education.** (2:2:0) F.S. (2:5:0) Su. Belnap
- 671, 672. Curriculum of Religion in Secondary Schools.** (2:5:0 ea.) Su. 1964.  
Berrett, Staff
- 673, 674. Methods of Teaching Religion in College.** (2:5:0 ea.) Su. 1964.  
Berrett, Staff
- 675, 676. Teaching Religion in Colleges.** (2:5:0 ea.) Su. (Not offered 1962-64)  
Berrett, Staff
- 677. Problems of Teaching Religion.** (1:3:0) Su. (Not offered 1962-64)  
Berrett, Staff
- 680. Philosophic Problems and Religious Instruction.** (1:3:0) Su.  
Madsen, Riddle, Yarn Staff
- 699. Thesis for Master's Degree.** (1-6:1-6:0) F.S.Su. Staff

These courses also count in religious education:

- Theology 530. L.D.S. Theology.** (2:2:0)
- Education 620. Introduction to Counseling Theory and Practice.** (3:3:0)
- Philosophy 581. Seminar: Philosophical Analysis.** (2:2:0)

**Professor:** Reid (chairman, A-237 ASB).

**Instructor:** Ravsten\*.

## **Skills Improvement Service**



Many students who come to this University, and particularly those on academic warning, are not well equipped to do the academic work required of them. The purpose of the Skills Improvement Service of General College is to develop abilities and attitudes which will allow students admitted on academic warning to compete effectively with other students at the University. To do so, they will have to learn to read, write, speak, think, and study more effectively.

The Skills Improvement Service assists students under its jurisdiction through special classes and individual advisement and counseling. Specific policies and procedures which have a bearing on the students admitted on academic warning are listed below:

1. All students, freshman or transfer, admitted on academic warning are required to enroll in General College regardless of their class standing at the time of admission.
2. Students admitted on academic warning will be limited to a total of twelve hours of work, including both credit and noncredit courses.
3. Students admitted on academic warning will be given special diagnostic tests to determine the nature and extent of their academic handicap.
4. Students admitted on academic warning are required to take Skills Improvement Service 101, Effective Study and Adjustment to College, during the first semester they attend the University.
5. Students under the jurisdiction of the Skills Improvement Service will be directed by specially selected advisers. The advisers have accepted the responsibility of meeting these probationary students at frequent, regular intervals in an effort to help them work out the specific adjustment problems which arise during the first semester here at the University. If students do not achieve the minimum academic standards of their class, they will continue to work with their adviser in the Skills Improvement Service.
6. Students admitted to Brigham Young University on academic warning who maintain a B.Y.U. cumulative grade-point average equal to or above the minimum standard for their class (1.75 for freshmen and 2.00 for sophomores, juniors and seniors), may register in any college or department in the University. They must, however, meet the standards for admission set by the department or college of their choice.

Listed below are the classes currently offered by the University as remedial courses. Enrollment in these courses is not restricted to students on academic

warning or probation, with the exception of Skills Improvement Service 101, during the first semester of each year. Many students can profit academically by availing themselves of these classes and are encouraged to do so in an effort to meet their own study-skills needs. For detailed course listings see the appropriate departments.

**English 10. Preparatory English**

**English 15. Remedial English for Juniors**

**English 55, 56. English for Bilingual Students**

**Speech 60. Remedial Speech**

**Mathematics 51. Plane Geometry**

**Developmental and Remedial Reading Clinic.** The reading clinic is administered by the Skills Improvement Service. The clinic was created to help students who need developmental and remedial reading instruction. Students are encouraged to avail themselves of the opportunity to learn how to read better and faster.

Students may participate in the Remedial Reading Program by registering directly through the Skills Improvement Service of General College, Room A-235, A. O. Smoot Building. This is a noncredit program and the primary motivation for participation is self-improvement.

On a fee basis, Adult Education and Extension Services of the University offers a developmental reading course similar to that of the Skills Improvement Service. Students may avail themselves of this course by contacting Adult Education and Extension Services.

#### **Lower Division Course**

#### **101. Effective Study and Adjustment to College. (1:3:0) F.S.**

Budgeting time, notemaking, memorizing, improvement of reading, use of library, concentration are the topics studied in this course. Also, time is spent in studying the application of psychology to typical problems of college students.

**Professors:** Symons (chairman, 1216A SFLC),  
Ballif, Bradford, Smith.

## Sociology and Anthropology

**Associate  
Professors:** Christiansen, Dyer, Empey\*, Ver-  
non.

**Assistant  
Professors:** Payne, Peterson, Sorenson.



Because both sociology and anthropology share their theory and methods to a significant degree, it is the practice at B.Y.U., in common with most American universities, to administer the two disciplines under the same department. For clarity of reference, however, classes and information on each field are presented separately.

### Sociology

Sociology is the scientific study of human interaction and the results of such interaction. Attention is given to the social systems which are thus developed and to the norms, roles, statuses, institutions, knowledge, values, etc. (culture), which are related thereto, including the relationship of these factors to conditions of social stability and instability. Specific application of sociological concepts is made to major social units such as familial, peer, religious, educational, occupational, political, medical, racial, and ethnic groups.

A sociology major is necessary for students planning to become professional sociologists in teaching, research, or other applied areas. Sociology is also basic preparation for those planning careers in areas such as:

- Social work
- Teaching
- Counseling
- Research
- Recreation
- Professional scouting
- Red Cross work
- Community planning
- Industrial relations
- Governmental service

Courses in sociology are helpful to students interested in gaining an understanding of the behavior of their fellowmen and increasing their own effectiveness in relationships with others.

The Department of Sociology gives the Bachelor of Science degree. The student may elect to fill the requirement either in the language or the science areas.

### Requirements for a Major

Majors in the department are required to take Sociology 111, 112, 320, 397, 404, 405, 491, and to present total sociology credit of 30 hours or more. A maxi-

num of 6 of the 30 hours may be chosen from a selected list of courses in other departments, with consent of the departmental adviser. Courses listed as soc-psych (social-psychology) may be used for credit either in sociology or psychology, but not in both.

Lists of recommended sociology courses, beyond those required—for goals such as research, teaching, general cultural education, social work, etc.—can be secured from your departmental adviser. As an example, some of the courses recommended pre-professionally for social work are: Sociology 350, 360, 362, 364, 383, 389, 403, etc. People moving toward the social work goal should take selected courses in most of the social sciences, particularly psychology.

Sociology is one of the subjects comprising the composite major in social science designed for prospective teachers. See courses in sociology listed under the College of Education. Prospective teachers who intend to either major or minor in sociology other than on the composite basis should also check requirements concerning sociology courses listed under the College of Education.

### Requirements for a Minor

For students minoring in sociology, Sociology 111 is required, with remaining hours to be recommended by the student's adviser according to the needs and interests of the student.

### Lower Division Courses

111. **Introductory Sociology.** (3:3:0) F.S.Su. Home Study also. (G-SS m) Staff  
Foundation course designed to give groundwork for all sociological study. Presents general view of how social organization affects human behavior.
112. **Social Disorganization.** (3:3:0) F.S.Su. Home Study also. (G-SS m) Staff  
Analyzes forces within society which produce disorganization. Considers specific problems such as crime, race relations, mental health, divorce, alcoholism, and delinquency.
125. **Applied Sociology.** (2:2:0) F.S.Su. (G-SS m) Vernon  
Presents applications of sociological principles and teachings in such fields as teaching, business and industry, nursing, military life, and medicine.

### Upper Division Courses

- 300, 301. **People and Cultures Around the World I, II.** (1-3:Arr.:Arr.) F.Su. Limited to participants in B.Y.U. Travel Studies Program. Staff  
Analyzes the principal sociological aspects of those societies included in the B.Y.U. Travel Studies tours.
316. **Social Control.** (2:2:0) S. (m) Payne  
Importance of public opinion, belief, social suggestion, ceremony, personal ideals, etc., as means of controlling behavior.
320. **Social Statistics.** (3:3:0) F.S.Su. (m) Home Study also. Christiansen, Peterson  
Statistical procedures used in sociological research and social work, including averages, variation, hypothesis testing, and scientific prediction.
348. **Collective Behavior.** (2:2:0) S. (m) Ballif, Vernon  
The action of groups which operate without clearcut direction from the culture within which they are found. Such groups as lynching mobs, riots, and crowds are analyzed as well as mass behavior and communication. The causes, nature, and consequences of such behavior are considered.
350. **(Soc-Psych) Introduction to Social Psychology.** (3:3:0) S.Su. (G-SS m) Prerequisite: Sociology 111 or Psychology 111. Staff  
Nature of social influences; socialization; concept of norm; role and status; development of beliefs and attitudes; leadership; group processes. Applications to prejudice, persuasion, social control.

357. (Soc-Psych) **Group Relations and Leadership.** (3:3:0) F.S.Su. Home Study also. (m) Dyer, Hardy  
Designed to help the individual participate effectively in group life and to assist leaders to become efficient in role performance.
360. **Introduction to Social Work.** (2:2:0) F. (m) Prerequisite: Sociology 111. Ballif, Symons  
Introductory survey of the various fields and methods of social work. Considers implications of social work for the related professions.
362. **Introduction to Social Case Work.** (2:2:0) F. (m) Prerequisite: Sociology 380. Symons  
Analyzes principles and practices of case work with the maladjusted and dependent.
364. **Introduction to Social Group Work.** (2:2:0) S. (m) Prerequisite: Sociology 360. Symons  
Analyzes the principal theories and practices in social group work.
370. **Social Relations in Medical and Health Organizations.** (2:2:0) S. (m) Peterson  
Analyzes the structure of medical and health organizations. Designed for pre-medical, pre-dental, and health education students.
380. **Introductory Criminology and Penology.** (3:3:0) F.S.Su. (m) Empey, Smith, Symons  
Analyzes nature and extent of criminal behavior. Emphasizes current theory and research as they relate to the causes of crime.
383. **Juvenile Delinquency.** (2:2:0) F.S.Su. Home Study also. (m) Prerequisite: Sociology 111. Empey, Smith, Symons  
Analyzes lawlessness of children and adolescents. Stresses causations, treatment, prevention, and outlook.
386. **Organized Crime.** (2:2:0) F.S. (m) Prerequisites: Sociology 111, 380 or 383. Symons  
Historical backgrounds for development of organized crime in the United States. Considers proposals for prevention.
389. **Social Aspects of Mental Health.** (3:3:0) F. Home Study also. (G-SS m) Christiansen, Symons  
Personality disorders and emotional maladjustments which originate in group life. Social causation, treatment, and prevention of mental ills.
397. **Methods of Research in Sociology.** (3:3:0) S.Su. (m) Prerequisite: Sociology 111. Christiansen, Peterson  
Basic methods of research used in investigation of sociological data.
403. **Marriage and the Family in American Society.** (2:2:0) F.S.Su. Home Study also. (m) Bradford, Peterson  
Analyzes the effect that American society has upon successful marriage and family living. Problems connected with the roles of child, adolescent, wife, husband, and the aged are discussed.
404. **Development of Sociological Theory.** (3:3:0) F. (m) Prerequisite: Sociology 111. Bradford, Dyer, Smith, Peterson  
Analyzes the development of prominent sociological theories and the contributions of outstanding theorists.
405. **Sociological Principles.** (3:3:0) S. (m) Prerequisite: Sociology 111. Bradford, Dyer  
Analysis of generalizations derived by sociology concerning how social interactions, groups, institutions, roles, statuses, and culture affect human behavior.
410. **Racial and Minority Group Relations.** (2:2:0) F.Su. Home Study also. (m) Ballif, Payne  
Basic processes in present-day inter-relations of racial and minority groups, Analyzes prejudice, its causes, and programs for its reduction.

- 420. Population Problems.** (3:3:0) F. Home Study also. (m) Payne  
The relationship of population factors to important problems encountered in education, labor, government, and other facets of modern life.
- 423. Rural Sociology.** (2:2:0) S. (m) Prerequisite: Sociology 111.  
Christiansen, Payne  
Gives attention to the particular factors and problems of rural life.
- 426. The Sociology of Urban Life.** (3:3:0) S. (m) Prerequisite: Sociology 111.  
Smith  
A sociological examination of norms, social controls, and social processes (and changing patterns in all of these) as they are seen in urban social life in both historical and contemporary perspective. Human ecology is also emphasized.
- 446. Sociology of Industrial Relations.** (3:3:0) S. (m) Dyer  
Role that social forces play in determining industrial organization. Emphasizes labor-management relations and problems of applied industrial sociology.
- 449. Community Organization, Action, and Planning.** (2:2:0) F. (m) Ballif, Dyer  
Basic fundamentals of community life. Analyzes techniques and methods for organizing community resources for efficient achievement of community objectives.
- 470. Social Change.** (3:3:0) S.Su. (m) Prerequisite: Sociology 111.  
Bradford, Peterson  
Analyzes the factors and processes of social change.
- 491. Senior Seminar.** (2:2:0) F.S.Su. (m) Prerequisites: Sociology 111; senior standing. Staff  
Analysis, formation, and integration of basic sociological concepts.

#### Advanced Undergraduate or Graduate Courses

For students working toward master's or doctor's degrees, the following groupings of courses are inserted:

Demography (minor only)	Rural sociology (minor only)	Sociological theory (major or minor)
620	523	604
693	693	
Deviant behavior (major or minor)	Social psychology (minor only)	Special readings and research (major or minor)
591	542	595
670	552	596
686	555	694
Family (minor only)	623	796
560	792	797
660		
Research Methods (major)	Social organization (major or minor)	Other courses (minor only)
524	512	543
561	516	551
597	570	Thesis (major)
701	626	699
	696	799
	791	

- 512. Sociology of Education.** (2:2:0) S. (m) Smith  
Analyzes principles of sociology of education and their implication for theory and practice of school administration, curricula, and methods of instruction.

516. **Sociology of Religion.** (2:2:0) F. (m) Vernon  
Analyzes influences of social factors in development of various religious systems.
524. **Advanced Social Statistics.** (3:3:0) F. (m) Prerequisite: Sociology 111. Christiansen  
Advanced course designed for those who intend to do research or continue in graduate work.
542. **Social Movements.** (2:2:0) S. (m) Payne  
Discusses social aspects of various movements from Adam Smith to John Dewey with special emphasis on social reform movements in the United States.
543. **Social Legislation.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Ballif  
Basic problems and techniques of social legislation. Analyzes various systems now in operation.
551. **Sociology of Recreation.** (2:2:0) S.Su. (m) Ballif, Payne  
Treats relations of recreational interests to growth, group behavior, and social maladjustments. Emphasizes basic theories of recreative activities.
552. **Personality: Culture and Society.** (3:3:0) F. (m) Prerequisite: Sociology 111 of Psychology 111. Christiansen, Dyer
555. **(Soc-Psych) Group Dynamics.** (2:2:0) S. (m) Prerequisite: Sociology 350. Dyer, Hardy  
Analyzes research and theories of group dynamics.
560. **Family and Kinship.** (2:2:0) S. (Offered 1963-64 and alternate years) (m) Bradford, Christiansen, Peterson  
Emphasizes the family in several different societies and problems created by various family systems.
561. **Contemporary Sociological Research.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Peterson
570. **Class, Status, and Power.** (2:2:0) F. (Offered 1963-64 and alternate years) (m) Prerequisite: Sociology 111. Empey, Peterson  
Analyzes the major status and class systems in various societies. Also discusses power relations in such systems.
591. **Seminar in Crime Causation and Treatment.** (2:2:0) F.Su. (m) Prerequisites: Sociology 111, 380. Empey, Smith, Symons  
Considers the major causes of crime and analyzes prevalent theory and techniques of treatment of criminals.
595. **Directed Readings.** (1-3:0:2-6) F.S.Su. (m) Staff  
Readings in special areas.
596. **Directed Readings.** (1-3:0:2-6) F.S.Su. (m) Staff  
Readings in special areas.
597. **Advanced Research Methods.** (3:3:0) S. (m) Prerequisite: Sociology 497. Peterson  
Analyzes methods used in investigation of sociological data. Field projects give the student actual experience in research.

#### Graduate Courses

604. **Seminar in Sociological Theory.** (2:2:0) S.Su. Prerequisites: Sociology 404 and 405. Bradford, Dyer  
An advanced course in sociological theory.
612. **Problems in Rural Society.** (3:2:1) F. (Offered 1962-63 and alternate years) Prerequisite: Sociology 423 or consent of instructor. Christiansen  
Field type training, with on the job contacts with county agents, et. al. Findings from these contacts will be the class room material.

- 620. Problems in Demography.** (3:3:0) F. (Offered 1962-63 and alternate years)  
Prerequisite: Sociology 420, or consent of instructor. Staff  
Current population problems of local, state, national, and international significance are considered. Complications involved in local and state trends receive special attention.
- 623. Demographic Analysis.** (3:3:0) S. (Offered 1963-64 and alternate years)  
Prerequisites: Sociology 420, 620. Staff  
The discipline of demography, with its special methods and procedures is analyzed. Major current research in the field receives careful coverage.
- 626. Contemporary Urban Social Structure.** (3:3:0) S. (Offered 1962-63 and alternate years) Prerequisite: Sociology 426 or consent of instructor. Smith  
Research oriented examination of social forces in contemporary urban life which influence patterns of human interaction.
- 660. Familial Role Structure.** (3:3:0) S. (Offered 1962-63 and alternate years)  
Prerequisite: Sociology 403. Bradford  
Analysis of the various roles in the family, with their attendant characteristics and problems, in various societies, but particularly in the United States.
- 670. Social Structure of the Mental Hospital.** (3:1:4) F. Prerequisite: consent of instructor. Vernon  
In cooperation with the Utah State Hospital, students participate in an analysis of the relationship between social structure of the hospital and patient behavior.
- 686. Problems in Race Relations.** (2:2:0) F. Ballif  
Considers significant problems of a specialized nature in the field of race relations.
- 693. A Study of Contemporary Rural Sociological Research.** (3:3:0) S. (Offered 1962-63 and alternate years) Prerequisites: Sociology 423 and 612. Christiansen  
Basic analysis of principles of rural sociology. Also review of leading research in the field. Research designs planned and some limited type research done.
- 694. Directed Research.** (1-3:0:2-6) F.S.Su. Staff  
Research in special areas.
- 696. Seminar in Industrial Sociology.** (3:3:0) S. (Offered 1962-63 and alternate years) Prerequisite: Sociology 446. Dyer  
Designed to give added insight by careful attention to current trends in industry, labor-management developments, government, participation, etc.
- 699. Thesis for Master's Degree.** (1-4:Arr.:Arr.) F.S.Su. Staff
- 701. Advanced Statistical Methods.** (2:2:0) S. (Offered 1963-64 and alternate years) Prerequisites: Sociology 320, 524. Christiansen, Peterson  
Consideration of advanced statistical techniques such as scalogram analysis, factor analysis, and latent structure analysis.
- 791. Seminar: Social Organization.** (2:2:0) F. Prerequisites: Sociology 111, 405. Dyer, Peterson  
Comprehensive examination of major theories of organization with emphasis upon theory construction.
- 792. Seminar: Social Psychology.** (2:2:0) S. Prerequisites: Sociology 350 and consent of instructor. Staff  
Special emphasis on group processes and socialization.
- 796. Special Research Problems.** (1-3:0:2-6) F.S.Su. Staff
- 797. Special Research Problems.** (1-3:0:2-6) F.S.Su. Staff
- 799. Dissertation for Ph.D.** (Arr.) F.S.Su. Staff

### Anthropology

Anthropology is the discipline which seeks to establish scientific explanations for the similarities and differences we observe over the world in men's ways of life. While it is commonly considered a social science, anthropology also has important historical roots and research interests in the natural sciences on the one hand and the humanities on the other.

Professional qualification as an anthropologist requires graduate training, normally the Ph.D. degree. (A student usually specializes as an ethnologist, archaeologist, linguistic scientist, applied anthropologist, or physical anthropologist, once he has a broad knowledge of the discipline.) Training on the undergraduate level prepares for some general applied positions such as counselor with minority groups or in foreign service. The greatest value of anthropology for most students is in providing an education which ties together in a single, broad framework all the student has learned about man and nature. As such it lays a solid foundation for a career in law, medicine, business or similar occupations where a liberal education is valued.

#### For a Major

Required for the bachelor's degree with a major in anthropology is completion of 30 hours in the field, including 101, 111, 241, 361, 325, 401, and 480. Up to 5 of the 30 hours may be substituted from a small list of courses in closely related fields.

#### For a Minor

The requirement is completion of 14 hours in the field, including 101 and 480.

#### Lower Division Courses

- 101. Introductory Anthropology.** (3:3:0) F.S.Su. Home Study also. (G-SS m) Staff  
Basic concepts, data, and conclusions reached in the study of likenesses and differences in men's patterns of behaving.
- 111. Cultures of the World.** (3:3:0) S. Home Study also. (G-SS m) Staff  
General ethnology. The variety of human designs for living seen through study of representative cultures and of the distribution of cultural features.
- 241. The Growth of Culture in the Old World.** (3:3:0) F. (m) Sorenson  
Prehistory and beyond. The major changes which took place in men's ways of life in the Old World from the earliest evidence to our day.
- 246. The Growth of Culture in the New World.** (2:2:0) S. (m) Sorenson  
What happened, and how, in the Americas before Europeans came.

#### Upper Division Courses

- 305. Religion in the Simpler Cultures.** (2:2:0) F. (m) Staff  
How religion operates in society, illustrated by reference to studies of the so-called "primitive" peoples.
- 325. Introduction to Linguistics.** (2:2:0) S. Staff  
For course description see Linguistics 325, under Language Department. Registration may be for linguistics, English, or anthropology credit.
- 361. Physical Anthropology.** (2:2:0) F. (m) Staff  
Man's biological past and present, and how they relate to cultural behavior. Also the methods of present-day physical anthropology.
- 401. Social Anthropology.** (3:3:0) S. (m) Prerequisite: Anthropology 101. Sorenson  
The generalizations about human behavior which have been established by cross-cultural investigations.

- 417. Native Peoples of North America.** (2:2:0) F. (Offered 1962-63 and alternate years) (m) Staff  
Distribution, characteristics and background of the peoples north of Mexico before European dominance.
- 418. Native Peoples of Central and South America.** (2:2:0) S. (Offered 1962-63 and alternate years) (m) Staff  
Distribution, characteristics, and background of the descendants of peoples in the area before European dominance.
- 480. Theory and Method of Anthropology.** (2:2:0) S. (m) Prerequisite: consent of instructor. Staff  
History of theory, research methods, and application of them in a specific field problem.
- 491. Readings.** (1-3:0:2-6) F.S.Su. Staff

This course also counts in anthropology:

**Art 403. Ancient and Primitive Art.** (2:2:0)

#### Advanced Undergraduate or Graduate Course

This course also counts in anthropology:

**Sociology 552. Personality: Culture and Society.** (3:3:0)

**Professors:** Nielson (chairman, 348 JK), Oaks.

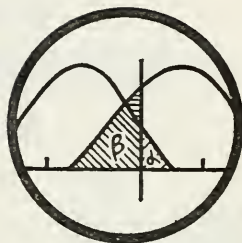
**Associate**

**Professors:** Carter, Gardner.

**Assistant**

**Professor:** Eagar.

## Statistics



The curriculum in statistics is designed to serve two purposes: (1) to provide for students the necessary educational background for careers as professional statisticians in industrial organizations, government agencies, and research institutes, and (2) to provide an integrated series of courses which will serve the entire University in providing technical tools which can be applied in many subject-matter areas.

Statistics, though a relatively recent professional field of study, has been given greater emphasis by a number of leading universities. There is a growing demand for statisticians in the natural and social sciences as well as in industry.

Statistics is an excellent major or minor in combination with accounting, agricultural economics, botany, business management, economics, education, mathematics, psychology, sociology, zoology, and other departments in the social, agricultural, biological, and physical sciences.

The department offers a major in statistics in either the College of Business or the College of Physical and Engineering Sciences. The department also offers both an undergraduate and a graduate minor.

### Requirements for a Major in Statistics in the College of Business

A. Departmental Requirements:		Hours
Twenty-five hours including Statistics 221 or 321, 241, 330, 331, 521 and at least two of Statistics 432, 433, 434, 531 .....		25
Mathematics 111, 112, 213, 313 or 372 or equivalent .....		18
Total Hours .....		43
B. College of Business Requirements:		
Accounting 201 and 202 or 211 and 212, 342 .....		9
Business Management 340, 347, 348 .....		9
Economics 111, 112, and 345 or 346 .....		9
Total Hours .....		27

### Requirements for a Major in Statistics in the College of Physical and Engineering Sciences

A. Departmental Requirements:		
Statistics 221 or 321, 241, 331, 341, 521, 522, 531, 541 and two additional courses .....		25-28
Mathematics 111, 112, 213, 313 or 372 or equivalent .....		18
Total Hours .....		43-46
It is recommended that those planning to do graduate work in statistics also take Mathematics 541 and 542.		

**B. College of Physical and Engineering Sciences Requirements:**

At least fifteen semester hours in the College of Physical and Engineering Sciences in addition to the mathematics requirement stated above. ....	15
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**Requirements for an Undergraduate Minor**

Fourteen semester hours in statistics including Statistics 331 and at least one of Statistics 221, 321, or 521 .....	14
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**Suggested Program for Statistics Majors**

Freshman Year			
	Hours		
Theology 121, 122 .....	4	Mathematics 111 and 112 .....	10
Physical education .....	1	History 170 .....	3
Health 130 .....	2	General education and elective courses .....	8-10
English 111 and 112 or 115 and 116 .....	4-6	Total Hours .....	34

**College of Business Majors**

Sophomore Year			
	Hours		
Religion .....	4	Statistics 330, 331 .....	6
Physical education .....	1	Other statistics, general educa- tion, and elective courses .....	12
Mathematics 213 .....	5	Total Hours .....	34
Accounting 211 and 212 .....	6		
Statistics 221 or 321, 241 .....	4-5		
Economics 111, 112 .....	6		
General education and elective courses .....	7-8		
Total Hours .....	34		
Junior Year		Senior Year	
	Hours		Hours
Religion .....	4	Religion .....	4
Economics 345 .....	3	Accounting 342 .....	3
Business Management 340, 347..	6	Business Management 348 .....	3
Mathematics 313 .....	3	Statistics 431, 433, 434, 531 (two courses) .....	4-5
		Statistics 521 .....	3
		Other statistics, general educa- tion, and elective courses .....	16-17
		Total Hours .....	34

**College of Physical and Engineering Sciences Majors**

Sophomore Year			
	Hours		
Religion .....	4	Statistics 331, 341 .....	5
Physical education .....	1	Other statistics, general educa- tion, and elective courses .....	18-20
Statistics 221 or 321, 241 .....	4-5	Total Hours .....	34
Mathematics 213, 313 .....	8		
Physical and engineering sciences .....	8-10		
General education and elective courses .....	7-9		
Total Hours .....	34		
Junior Year		Senior Year	
	Hours		Hours
Religion .....	4	Religion .....	4
Physical and engineering sciences .....	5-7	Statistics 521, 522 .....	6
		Statistics 531 .....	3
		Statistics 541 .....	3
		Other statistics, mathematics, physical science, general educa- tion, and elective courses ..	18
		Total Hours .....	34

**Courses of Related Interest:**

Accounting 555, 556, 557.  
 Animal Husbandry 601.  
 Botany 176, 376, 377.  
 B.E.O.M. 206.  
 Business Management 558, 559.  
 Economics 588, 682.  
 Education 540, 541.  
 Mathematics 311, 312, 332, 334, 336, 371, 372, 387, 435, 541, 542.  
 Philosophy 480, 483.  
 Psychology 370, 670, 671.  
 Sociology 320, 524, 701.  
 Zoology 176, 376, 576.

**Lower Division Courses**

- 221. Principles of Statistics.** (3:3:0) F.S.Su. (m) Prerequisite: Math 101 or Accounting 131 or equivalent. Carter, Eagar  
 Frequency distributions; measures of central tendency and dispersion; elementary probability; regression and correlation; sampling; elementary statistical inference including the normal, Student's-t, chi-square, and analysis of variance tests.
- 241. Elementary Probability.** (2:2:2) S. (m) Prerequisite: Math 111 or Accounting 132; recommended: Statistics 221 or 321. Eagar  
 Combinations; permutations; Bayes formula; binomial, Poisson, multinomial and hypergeometric distributions; combinatorial probability.

**Upper Division Courses**

- 321. Elementary Mathematical Statistics.** (2:2:0) F.S. (m) Prerequisite: Math 213 or Accounting 332. Eagar, Nielson  
 Same material as Statistics 221, using calculus. Primarily for majors in the physical and engineering sciences.
- 330. Statistical Methods Used in Business.** (3:3:0) F.S. (m) Prerequisite: Statistics 221 or 321 or equivalent. Eagar, Nielson  
 Advanced time series analysis; growth curves; multiple correlation; forecasting; sample survey methods; introduction to operations analysis; introduction to sampling inspection and quality control.
- 331. Statistical Methods Used in the Sciences.** (3:3:0) F.S. (m) Prerequisite: Statistics 221 or 321 or equivalent. Carter, Nielson  
 Estimation and tests of hypotheses; contingency tests; analysis of variance; analysis of covariance; multiple and partial regression; non-parametric methods; introduction to experimental design.
- 341. Intermediate Probability.** (2:2:0) F. (m) Prerequisites: Statistics 241, Math 213 or Accounting 332. Nielson  
 Continuous probability distributions including the normal, chi-square, Student's-t, F, Gamma and Beta distributions. Expectation; sum of random variables; laws of large numbers; central limit theorem.
- 432. Industrial Statistics.** (2:2:0) F.S. (m) Prerequisite: Statistics 221 or 321; recommended: Statistics 330. Oaks  
 Quality control, sampling inspection and sequential analysis; industrial experimentation.
- 433. Operations Analysis.** (2:2:0) S. (m) Prerequisite: Math 112 or equivalent; recommended: Statistics 221, 321, or 241. Eagar  
 Mathematical decision-making processes including linear programming, game theory, inventory and replacement models, sequencing and scheduling procedures.

- 434. Sampling Principles.** (2:2:0) F. (Not offered 1962-63) (m) Prerequisite: Statistics 221 or 321; recommended: Statistics 330 or 331. Staff  
Simple random, stratified, cluster and area samples; sample size required for given accuracy; ratio and regression sampling procedures; non-probability sampling methods.

**These courses also count in statistics:**

**Mathematics 311. Computers.** (3:1:6)

**Mathematics 312. Numerical Analysis.** (3:3:0)

### Advanced Undergraduate or Graduate Courses

- 521, 522. Theory of Statistics.** (3:3:0 ea.) F.S. (m) Prerequisite: completion of or concurrent registration in Math 213; recommended: Statistics 221 or 321. Nielson  
Mathematical theory of statistics including linear hypotheses, theoretical distribution functions, expected value, sufficient statistics, maximum likelihood estimators, etc.
- 531. Experimental Design.** (3:3:0) F. (m) Prerequisites: Statistics 221, 321 or 521; recommended: Statistics 331. Carter  
Randomized blocks, Latin Squares, Factorial designs, fractional replication, confounding, incomplete blocks, lattice designs, response surfaces.
- 541. Advanced Probability.** (3:3:0) S. (m) Prerequisites: Math 213, Statistics 341 or 521. Nielson  
Recurrent events, runs and sequences, advanced combinatorial methods, random walk, Markov chains, stochastic processes, queuing and Monte-Carlo methods.

**These courses also count in statistics:**

**Accounting 556. Electronic Computer Programming.** (3:3:0)

**Accounting 557. Advanced Computer Programming.** (2:2:0)

**Psychology 670, 671. Advanced Statistics I and II.** (2:2:0)

**Animal Husbandry 601. Experimental Techniques and Design.** (2:2:0)

**Education 541. Advanced Statistics.** (2:2:0)

**Sociology 524. Advanced Statistics.** (3:3:0)

**Sociology 701. Advanced Statistical Methods.** (2:2:0)

## Teacher Education

**Professors:** D. Christensen (chairman, 153 McKay), Callahan, Clarke, Woolf (emeritus).

**Associate Professors:** Babcock, Barnett, Bauer, Campbell (emeritus), L. Christensen, Crnkovic, Daines, Harris, Krider, Read.

**Assistant Professors:** Alder, Belt, Flandro, Gagon, Hammond (emeritus), Harms, Hardy, McPhie, Ord, Tyndall, Utley, Wilcox, Wilson.

**Instructors:** Harrison, Miles, Williams.

**Supervisors and Methods**

**Teachers:** Bennett, Bowles, Brown, Carlisle, H. Clark, W. H. Clark, Davidson, deJong, Hill, Miller, Young.



The Teacher Education Department is organized to develop effective and capable teachers. Courses sponsored by this department are designed to help students understand children, organize materials, and to acquire the knowledge, skills, and attitudes of effective teachers.

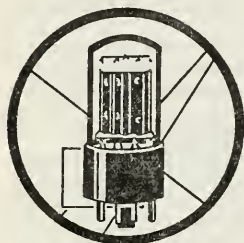
### Upper Division Courses

- 300. Teaching in the Church.** (2:2:0) F.S. **Staff**  
Equivalent to the Church Teacher Training Program. Does not apply toward state certification.
- 301. Basic Concepts and Principles of Teaching.** (2:2:1) F.S.Su. **Staff**  
For potential elementary and secondary teachers, regardless of level or field. An exposition of a simple and operational concept of teaching consisting of three elements: the objective, the learning experience, and receptiveness to learning.
- 304. Educational Psychology.** (2:2:0) F.S.Su. Home Study also. Prerequisites: Education 449 or 479, H.D.F.R. 210, Psychology 320 or 321. **Bauer, Harrison**  
Enrollment limited to homemaking education majors and those with composite majors which include psychology. Others should receive special permission from the instructor. Psychological facts, principles, and concepts related to the teaching-learning situation are covered.
- 310. The State, the School, and the Teacher.** (2:2:0) F.S.Su. (m) **Staff**  
Understanding the school and its relationship to the community, the state and the nation; how schools are organized and administered, with emphasis on Utah school organization and Utah school laws.
- 320. Basic Classroom Procedures.** (3:3:0) F.S.Su. Prerequisite: Education 301. **Staff**  
For prospective elementary teachers. Identification of teacher and pupil activities required for conceptual learning and for the following related types of subject matter and teaching: symbolic, performance ability, and habit. Also, lectures, demonstrations, and participation in non-instructional activities at an elementary school.

- 321. Elementary Reading Methods.** (3:3:0) F.S.Su. Prerequisites: Education 301, 320. Staff  
For prospective elementary teachers. An extension of Education 320, with special application to reading and arithmetic.
- 322. Elementary Arithmetic Methods.** (2:2:0) F.S.Su. Prerequisites: Education 301, 320. Staff  
Methods and procedures of teaching arithmetic in the elementary grades. Students are provided experiences with the number system, the four basic fundamental processes, and problem solving. Instruction in methods of making these processes meaningful to children.
- 324. Arts and Crafts for Elementary Teachers.** (2:2:1) F.S.Su. Staff  
Simple weaving, puppetry, paper mâché, clay modeling, and other activities suitable for children. These activities are suited to grades three through six.
- 325. Arts and Crafts for Early Childhood.** (2:2:1) F.S.Su. Staff  
Exploring ideas and materials for the young child (nursery school, kindergarten through third grade).
- 338. Manuscript Writing.** (1:1:0) F.S.Su. Staff  
Develops skill in manuscript, cursive, and blackboard writing for elementary teachers.
- 340. Children's Literature.** (2:2:0) F.S.Su. Staff  
Evaluation of significant books, past and present, that meet children's needs.
- 354. Methods and Materials of Instruction in Secondary Schools.** (3:3:0) F.Su. Staff  
Designed to meet certificate needs of secondary teachers in Idaho.
- 377. Secondary Teaching Procedures.** (3:3:1) F.S.Su. Prerequisite: Education 301. Staff  
Identification of teacher and pupil activities required for conceptual learning and for each of the following types of subject matter and teaching: symbolic, performance ability, and habit. Lectures, demonstrations, and participation in non-instructional activities at a high school. (Students should arrange their class schedules to permit approximately 20 hours for directed observation and participation in the laboratory school during the 8:00 a.m. hour through the 3:15 p.m. hour.)
- 403. Development and Learning.** (4:4:0) F.S.Su. Prerequisite: Education 449 or 479. Bauer, Harris, Harrison  
Designed to give the student an understanding of the psychological facts, principles, and concepts related to the teaching-learning situation. Attention is given to such topics as the learning process, readiness, individual differences, motivation, and evaluation.
- 405. Analysis of Curriculum and Teaching.** (2:2:0) F.S.Su. Prerequisite: student teaching completed or two years of teaching experience. Staff  
For both prospective elementary and secondary teachers. Analysis of teaching plans and experiences. Also, the discussion of the use of principles to analyze and clarify concepts and practices in teaching.
- 406. Teaching Materials Laboratory (Audio-Visual Aids).** (2:2:1) F.S.Su. Staff  
Introduction to and production of audio-visual aids by individuals.
- 415. Educational Values.** (2:2:0) F.S. Home Study also. Prerequisite: Education 449 or 479. This may be taken in the same semester as 415 on the "block" plan.  
Identification and analysis of fundamental American values and of value systems upon which American educational objectives should be based. Problems and concepts encountered in earlier courses in the educational sequence are examined in the light of the values studied.

- 422. Kindergarten Proficiency.** (2:2:0) F.S.Su. Staff  
 Organization of programs, lesson planning, methods and materials, and best practice in early childhood education (ages four to nine) with emphasis on the theory and practice in kindergarten. (Requirement for H.D. F.R. majors and for certification in kindergarten proficiency.)
- 449. Elementary Student Teaching.** (4-8:0:20-40) F.S. Prerequisites: Education 301, 320, 321. Staff  
 Designed to develop readiness for full comprehension of the principles of teaching and the remaining subject matter and education courses. Special attention to on-the-job lesson planning and unit organization. Seminar on student teaching problems is held weekly. (A laboratory fee of \$45.00 is charged, payable upon application for student teaching.)  
 An application for a special assignment must be filed with the Student Teaching Office one semester in advance of receiving an assignment. Student teachers are expected to do responsible teaching, participate in co-curricular activities, and keep in close contact with the faculty and students in a public school, as well as to participate in seminars and conferences with their supervisors. During this period of student teaching, the student must limit his load to the student teaching registration only.
- 460 (E.R.S. 560). Education of Exceptional Children.** (3:3:0) F.S.Su. Krider, Wilson  
 A general course designed to acquaint the student with the causes, recognition, incidence, and characteristics of all types of exceptional children. Designed to meet needs of both classroom teacher and person going into special education.
- 479. Secondary Student Teaching.** (4-8:0:20-40) F.S. Prerequisites: Education 301, 377. Staff  
 Designed to develop readiness for full comprehension of the principles of teaching and the remaining subject-matter and education courses. Special attention to on-the-job lesson planning and unit organization. (A laboratory fee of \$45.00 is charged, payable upon application for student teaching.)  
 An application for a specific assignment must be filed in the Student Teaching Office one semester in advance of receiving an assignment. Student teachers are expected to do responsible teaching, participate in co-curricular activities, and keep in close contact with the faculty and students in a public school as well as to participate in seminars and conferences with their supervisors. During this period of student teaching, the student must limit his load to the student teaching registration only.
- 490, 491. Seminar.** (1-2:1-2:0) F.Su. Staff
- 493, 494. Independent Reading.** (1-2:1-2:0 ea.) F.S.Su. Staff

## Technical and Semi-Professional Institute



**Professors:** Jeppsen (director, A253 ASB), Cutler, Snell, Walker.

**Associate Professors:** Croft, Dean, McArthur.

**Instructors:** Allen, Gardner, Holtkamp, Long, McKinnon, Naegle, Pett, Spencer, Stevenson, Tolman, Western, Wright.

The Technical and Semi-Professional Institute is a major division of the General College. It is organized for the purpose of offering to students, specialized programs in technical and semi-professional fields. At present these programs include agricultural, business, commercial art, computer programming, engineering, homemaking, industrial, and genealogical technology. Each program is developed around a basic core of college subjects, including English, science, mathematics, physical education, health, and religion. It also provides the specialized training necessary to prepare successful potential employees for business and industry. These programs are designed to develop successful and productive citizens with a constructive philosophy of life. Instructors are experienced teachers with advanced technical training and years of successful experience in their respective occupations.

### Two-Year Specialized Programs

**Agriculture**—for agricultural technicians.

**Business**—for accounting, business and office management technicians.

**Commercial Art**—for commercial art or advertising technicians.

**Computer Programming**—for business and industrial technicians.

**Engineering**—for civil, electrical, electronics, and mechanical engineering technicians.

**Homemaking**—for home technicians.

**Industry**—for drafting, light building construction, industrial electronics, tool design, and welding technicians.

**Genealogy**—for genealogical research technicians.

### Entrance Requirements

Requirements for admission to the Technical and Semi-Professional Institute of General College are the same as those for admission to the University listed in the Student Academic Services section of this catalog. In addition to these requirements, students enrolling in engineering technology will find it necessary in order to complete the required curriculum without loss of time, to have successfully completed three years of high school English and two years of mathematics, including algebra and geometry; also, it would be helpful to have completed one year of physical science, preferably physics. Students having deficiencies in these requirements should consult their program advisers for remedial courses.

### Graduation

Upon completion of a two-year curriculum in technology consisting of a minimum of 64 semester hours of credit, a special certificate indicating the field of specialization will be awarded each student at the regular University graduation exercises.

**AGRICULTURAL TECHNOLOGY**

Supervisor: Rudger H. Walker

Training in practical phases of agriculture is offered for those students desiring to complete only two years of college, or who are unable to continue with the four-year professional course leading to a bachelor's degree.

The suggested course of study outlined below is designed to give the student an understanding of the primary phases of practical agriculture along with some basic science courses required for upper division work in agriculture. In these courses emphasis is given to the general principles of crop and livestock production, the economics of agriculture, and the principles of farm management.

In the event the student later decides to continue with the four-year curriculum, all of the courses listed in the suggested study program may be counted toward the bachelor's degree.

Freshman Year			Sophomore Year		
	F	S		F	S
Animal Husbandry 120			Agronomy 251, 141 .....	4	3
or 170 .....	3		Ag. Econ. 101, 325 .....	3	4
Animal Husbandry 153..		3	Animal Husbandry 207..		3
Horticulture 101 .....		3	Chemistry 101, 102* .....	5	5
Botany 101 .....	3		Religion .....	2	2
Zoology 105 .....		3	History 170 .....	3	
English 111, 112 .....	3	3			
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Total Hours .....	17	17
Health 130 .....	2				
Electives .....	2	2			
Religion .....	2	2			
Total Hours .....	15 $\frac{1}{2}$	16 $\frac{1}{2}$			

\*Or Chemistry 111, 112.

**BUSINESS TECHNOLOGY**

Supervisor: Evan M. Croft

Office and secretarial workers and persons with accounting training are in great demand in the employment market. Virtually every type of industry employs clerical workers, since office work is such an integral part of every business. In addition to this widespread utilization of office workers, there is a high turnover rate which further accentuates the need for new employees. Despite the use of more and more labor-saving equipment and increased efficiency in office procedure, there will be a continued demand in the future for people with this type of training.

**Accounting**

Adviser: Harold F. Western

Competent accountants with associated business experience are in great demand in both the industrial and business fields. The following two-year program will prepare students for efficient and profitable service in these fields.

Freshman Year			Sophomore Year		
	F	S		F	S
Accounting 131*, 132 ....	2	2	Accounting 312, 301 ....	3	5
Accounting 211, 212 ....	3	3	Accounting 255 .....	2	
B.E.O.M. 101 .....	2		Accounting 342 .....	3	
B.E.O.M. 206 .....		2	Business Mgt. 347 .....		3
Economics 111 .....	3		B.E.O.M. 220, 320 .....	3	3
English 111, 112 .....	3	3	B.E.O.M. 305 .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Health 130 .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Scripture 121, 122 .....	2	2	History 170 .....		3
Electives .....		2			
Total Hours .....	15 $\frac{1}{2}$	16 $\frac{1}{2}$	Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$

\*Or Math 101.

**Business and Office Management**

Adviser: Evan M. Croft

This curriculum is outlined for students who are interested in a variety of positions in office work. Students having a high degree of skill in shorthand and typewriting upon entering the Technical and Semi-Professional Institute may substitute appropriate courses with the approval of the supervisor of business technology.

Freshman Year			Sophomore Year		
	F	S		F	S
B.E.O.M. 101, 203 .....	2	2	B.E.O.M. 204, 220 .....	2	3
B.E.O.M. 111, 112 .....	4	4	B.E.O.M. 305 .....	3	
B.E.O.M. 206 .....	2		B.E.O.M. 311, 321 .....	4	4
Economics 101 .....		3	B.E.O.M. 370 .....	3	
English 111, 112 .....	3	3	B.E.O.M. 485 .....		1
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Accounting 211 .....		3
Health 130 .....		2	Religion .....	2	2
Scripture 121, 122 .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Electives .....	2		History 170 .....		3
			Electives .....	2	
Total Hours .....	15 $\frac{1}{2}$	16 $\frac{1}{2}$	Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$

**COMMERCIAL ART OR ADVERTISING TECHNOLOGY**

Supervisor: Richard L. Gunn

Artistic ability combined with broad training in art and technical training or experience are requirements for becoming a commercial artist. Positions in shops or agencies are usually available to competent students who have good basic training in drawing, layout, and design, and have had some work in applying these through various media used in commercial art. Fundamental work in preparing for specialized training or experience is offered in the following two-year program.

Freshman Year			Sophomore Year		
	F	S		F	S
Art 121 .....	3		Art 250, 227 .....	2	2
Art 122, 233 .....	3	2	Art 310, 312 .....	2	2
Art 239, 256 .....	2	2	Art 341, 343 .....	2	2
Art 263, 306 .....	2	3	Art 342 .....	2	
Business Mgt. 347 .....		3	Accounting 201 or 211 ..		5
English 111, 112 .....	3	3	B.E.O.M. 220 .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Business Mgt. 315 .....	3	
Health 130 .....	2		History 170 .....		3
Electives .....		2	Religion .....	2	2
Religion .....	2	2			
<hr/>			<hr/>		
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	Total Hours .....	16	16

**COMPUTER PROGRAMMING TECHNOLOGY**

Supervisor: C. Edwin Dean

The use of digital computers is becoming more and more widespread in all types of business and accounting procedures, in mathematical analysis, and in control of many industrial and commercial processes. It also has capabilities ranging from simple automatic monitoring and recording to complete computer control of complex industrial operations.

Because of this widespread use of digital computers and a growing need for trained technicians in this field, students should be trained in the fundamentals of the operation of digital computers, the procedures for programming these machines, and the application of these machines to all types of usage. The programming technician should be an important member of the managerial team in

developing, operating, and increasing the use of automation in industry and should find himself in a very favorable position for desirable employment.

The following program is designed to prepare students for successful entrance into occupations of this type.

Freshman Year			Sophomore Year		
	F	S		F	S
E.T. 100 .....	1		E.T. 352 .....		3
E.T. 101, 102 .....	3	3	Math 223 .....	3	
Drawing 111 .....	2		Math 311 .....	3	
Math 121, 122 .....	3	3	Accounting 201 or 211 ..	5	
English 111, 112 .....	3	3	Accounting 557 .....		2
Physics 105, 106 .....	3	3	Statistics 221, 231		
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	or 333 .....	2	2 or 3
Health 130 .....		2	Business Mgt. 303 .....		3
Religion .....	2	2	Business Mgt. 420 .....		3
			Religion .....	2	2
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$			
			Total Hours .....	15	15 or 16

### ENGINEERING TECHNOLOGY

Supervisor: G. Albert Spencer

Our present industrial and technological economy requires an operating ratio of approximately five technicians to one engineer. With the rapid advancement of science and industry, with the present shortage of engineers, and with approximately five times as many technicians needed to adequately support our engineering manpower, the need for qualified engineering technicians becomes a major concern to our country.

The engineering technology programs that follow are designed to produce qualified technicians capable of contributing to our present day industrial expansion as successful engineering aids or assistants. They should be able to take their part on the engineering team by doing the detail work of engineering, leaving the engineer free to do more of the creative or theoretical work of industrial development and operation.

### Civil Engineering Technology

Adviser: G. Albert Spencer

The national highway expansion and extension program, local and national interest in building construction, perpetual need for land survey, and many other employment sources have created a demand for civil engineering technologists. They become members of the engineering team to aid the civil engineer in designing, constructing, and maintaining civil engineering projects in all areas. The following curriculum is designed to give the student basic and technical training to make him a needed and an efficient aid to the civil engineer.

Freshman Year			Sophomore Year		
	F	S		F	S
E.T. 100 .....	1		E.T. 205, 206 .....	3	3
E.T. 202 .....		2	E.T. 211 .....		3
E.T. 208 .....		3	E.T. 212 .....		2
Drawing 111 .....	2		E.T. 213 .....		2
Math 121, 122 .....	3	3	E.T. 214 .....		2
Physics 105, 106 .....	3	3	E.T. 216 .....	4	
English 111, 112 .....	3	3	C.E. 211 .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Drawing 257 .....	2	
Health 130 .....	2		Drawing 455 .....		2
Religion .....	2	2	Math 223 .....	3	
			Religion .....	2	2
Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$			
			Total Hours .....	17	16

**Electrical Engineering Technology**

Adviser: C. J. Holtkamp

The steady increase in power consumption throughout the world has created a tremendous demand for electrical power technicians in the fields of power plant operation, power transmission, and distribution; manufacturing of electrical machinery; design and construction of commercial and industrial power systems; and electrical inspecting, estimating, and drafting. The following curriculum is designed to give the student the basic and technical training necessary to effectively fill positions in these fields.

Freshman Year			Sophomore Year		
	F	S		F	S
E.T. 100 .....	1		E.T. 202 .....		2
E.T. 101, 102 .....	3	3	E.T. 221, 222 .....	3	3
Drawing 111 .....	2		E.T. 223, 224 .....	3	3
Math 121, 122 .....	3	3	E.T. 225, 226 .....	2	2
Physics 105, 106 .....	3	3	E.T. 228 .....		2
English 111, 112 .....	3	3	E.T. 241, 242 .....	3	3
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Math 223 .....	3	
Health 130 .....		2	Religion .....	2	2
Religion .....	2	2			
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$	Total Hours .....	16	17

**Electronics Engineering Technology**

Adviser: Boyd G. Pett

The space age has placed the electronics technician in a most enviable position. Rockets, jets, atomic power; instrumentation; industrial process control, and automatic manufacturing methods; radio, television, and aviation; metallurgical processes; petroleum and chemical processes; along with others are in themselves demanding that America produce trained, qualified technicians to assist in the technological growth and development of our country. The following curriculum is designed to give the basic and technical training necessary to place the student in the role of a successful electronics engineering technician.

Freshman Year			Sophomore Year		
	F	S		F	S
E.T. 100 .....	1		E.T. 202 .....		2
Drawing 111 .....	2		E.T. 221, 222 .....	3	3
E.T. 101, 102 .....	3	3	E.T. 228 .....		2
Math 212, 122 .....	3	3	E.T. 231, 232 .....	4	4
Physics 105, 106 .....	3	3	E.T. 234 .....		2
English 111, 112 .....	3	3	E.T. 235 .....	4	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	E.T. 237 .....		2
Health 130 .....		2	Math 223 .....	3	
Religion .....	2	2	Religion .....	2	2
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$	Total Hours .....	16	17

**Mechanical Engineering Technology**

Adviser: G. Albert Spencer

The increase in automation in all types of industry today is creating more and more need for trained mechanical technicians to work in design, production, installation, and operation of machines, tools, and all types of metal devices and products. Technicians are also needed in design, construction, and operation of machines and plants that produce power from coal, oil, gas and nuclear fuels as well as the machines that use this power. The following curriculum is designed to give the student basic technical training to qualify him for the above positions.

Freshman Year			Sophomore Year		
	F	S		F	S
E.T. 100 .....	1		E.T. 202 .....		2
E.T. 101 .....	3		E.T. 205, 206 .....	3	3
I.E. 130 .....		2	E.T. 216 .....	4	
Drawing 111 .....	2		E.T. 241, 242 .....	3	3
Math 121, 122 .....	3	3	I.E. 230 .....		3
Physics 105, 106 .....	3	3	Drawing 311, 410 .....	3	3
English 111, 112 .....	3	3	Math 223 .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Health 130 .....		2			
Religion .....	2	2	Total Hours .....	18	16
Total Hours .....	17 $\frac{1}{2}$	15 $\frac{1}{2}$			

## ENGINEERING TECHNOLOGY

## Lower Division Courses

100. **Orientation in Technology.** (1:1:0) F.S. Jeppsen  
Introduction to the fields of industrial and engineering technology.
- 101, 102. **Basic Electricity.** (3:2:3 ea.) F.S. (m) Holtkamp  
Elementary theory of electricity, including direct and alternating current circuits and magnetism; basic theory of electron tubes and transistors.
202. **Contracts and Specifications.** (2:2:0) S. (m) Spencer  
Preparation and interpretation of engineering and construction contracts and specifications.
- 205, 206. **Engineering Materials.** (3:2:3 ea.) F.S. Prerequisite: Math 122. Staff  
A survey of the materials used in engineering structures and machines. The physical properties of these materials, with emphasis on concrete, aggregates, wood, and steel. Laboratory testing of these materials for purposes of classification and field control.
208. **Construction Methods and Equipment.** (3:3:0) S. Prerequisites: Math 121, Physics 105. Staff  
Construction methods and machinery including inspecting, estimating, and scheduling procedures.
211. **Structural Technology.** (3:2:3) S. Prerequisites: Math 223, E.T. 216. Staff  
Introduction to the principles of analysis and design of timber, steel, and masonry structures.
212. **Water Resources Technology.** (2:1:3) S. Prerequisites: Math 122, Physics 106. Staff  
Introduction to basic considerations related to water resources for both domestic and irrigation use. Measurement of flow and other elementary hydraulic principles. Laboratory tests used in water and sewage treatment.
213. **Soil Testing Technology.** (2:1:3) S. Prerequisites: Math 122, Physics 106. Staff  
Introduction to the techniques of soil testing, including identification, classification, permeability, consolidation, and shear.
214. **Highway Technology and Materials.** (2:1:3) S. Prerequisites: Math 122, Physics 106. Staff  
Highway transportation fundamentals. Construction and maintenance of highways and streets. Laboratory work in testing procedures.
216. **Applied Mechanics.** (4:3:3) F. Prerequisites: Math 122, Physics 106. Holtkamp  
Introduction to statics, strength of materials, and dynamics. Elementary principles of structures, stresses in bending and torsion, and basic concepts of kinematics and kinetics. Application to engineering problems.

- 221. Electrical Machines.** (3:2:3) F. (m) Prerequisites: Math 122, Physics 106, E.T. 102. Spencer  
 Fundamentals of direct and alternating current machinery including motors, generators, transformers, their control and operation.
- 222. Electrical Control Systems.** (3:2:3) S. (m) Prerequisite: E.T. 221. Spencer  
 A continuation of the study of electrical machines with emphasis on industrial electronic control systems.
- 223, 224. Electrical Power.** (3:2:3 ea.) F.S. (m) Prerequisites: Math 122, Physics 106, E.T. 102. Holtkamp  
 Generation, transmission and distribution of electric power; electrical and mechanical analysis of power systems; lighting and fuse protection.
- 225, 226. Practical Wiring and Illumination.** (2:2:0 ea.) F.S. Prerequisites: Math 122, Physics 106, E.T. 102. Staff  
 Design of low voltage power systems for residential, commercial, and industrial projects. Basic principles of illumination including layout and design of lighting systems for commercial buildings, roadways, and manufacturing plants.
- 228. Electrical Drawing.** (2:1:3) S. Prerequisites: Math 223, Physics 106, E.T. 102. Staff  
 Fundamentals of electrical drawing, including study of electrical symbols, making of electrical circuit drawings, control diagrams, and installation drawings.
- 231, 232. Electronics.** (4:3:3 ea.) F.S. (m) Prerequisites: Math 122, Physics 106, E.T. 102. Pett  
 Advanced study of vacuum tube circuits used in commercial and industrial systems. Units include rectifiers, amplifiers, oscillators, modulators, detectors, and automatic controls.
- 234. Electrical Trouble Shooting.** (2:1:3) S. Prerequisites: Math 122, Physics 106, E.T. 102. Pett  
 Maintenance and service of electronic equipment, trouble shooting techniques, and the use of electrical measuring and testing devices.
- 235. Transistors, Servos, and Magnetic Amplifiers.** (4:3:3) F. Prerequisites: Math 122, Physics 106, E.T. 102. Pett  
 The action of transistors and their operation in amplifiers, oscillators, multivibrators, switching and pulse-forming circuits.
- 237. Electronic Instrumentation.** (2:2:0) S. Prerequisites: Math 223, Physics 106, E.T. 102. Holtkamp  
 The design and application of basic instrumentation to automated manufacturing and control processes.
- 241. Elementary Heat Power.** (3:2:3) F. Prerequisites: Math 122, Physics 106. Staff  
 Basic laws of thermodynamics; properties of systems; properties of gases, liquids, and vapors; pressure-volume and temperature-entropy planes; fuels and combustion, and heat transfer.
- 242. Power Plants.** (3:2:3) S. Prerequisites: Math 122, Physics 106. Staff  
 Classification, performance, capacity, and details of boilers and their auxiliaries and accessories; applications of steam power; work, energy, and efficiencies of engines and turbines; and hydro-electric power.

### Upper Division Course

- 352. Advanced Digital Computers.** (3:2:2) Prerequisite: Math 311. Dean  
 Advanced coding techniques; advanced computer logic; principles of board wiring using a modern digital computer and auxiliary equipment as laboratory tools.

**HOME TECHNOLOGY**

Supervisor: Virginia F. Cutler

Making a profession of homemaking is the principle objective of this program. Also this two-year program should provide opportunities for adding to the money income of the family.

As a student's talents are discovered, emphasis may be given to a specialized area of study and experience in order that the student might receive better preparation for occupational opportunities. Considerable flexibility is therefore possible in planning individual programs of study.

Freshman Year			Sophomore Year		
	F	S		F	S
Housing and Home Mgt. 170 .....	2		Housing and Home Mgt. 250 .....	2	
Clothing and Textiles 110, 105 or 165 .....	2	1-4	Clothing and Textiles 235 .....	2	
Food and Nutrition 110 .....	2		Food and Nutrition 255 .....	3	
H.D.F.R. 210 .....		3	Food and Nutrition 115 or 245 .....		2
English 111, 112 .....	3	3	H.D.F.R. 360 .....		3
Health 130 .....		2	Accounting 131 .....	2	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Electives* .....	4	5-1	History 170 .....		3
Total Hours .....	15 $\frac{1}{2}$	16 $\frac{1}{2}$	Electives* .....	5	7
			Total Hours .....	16	17

\*To be selected from major departments in the College of Family Living.

**INDUSTRIAL TECHNOLOGY**

Supervisor: Ross J. McArthur

Our present industrial and technological economy requires industrial technicians as well as engineering technicians. The industrial technician serves the industrial occupations in a manner similar to the way the engineering technician serves the engineering occupations.

The industrial technician assists with technical details in an industrial occupation. He uses tools, instruments, and/or special devices to design, illustrate, fabricate, maintain, operate, and test objects, materials, or equipment; examines and evaluates plans, designs, and data; and interprets work procedures and maintains harmonious relationships among groups of workers.

To meet the need of trained industrial technicians for industry, the following curricula are provided.

**Drafting Technology**

Adviser: Wilford J. Tolman

This program is offered to prepare students for positions as architectural or mechanical drafting technicians. Drafting technicians are generally in great demand in all areas of scientific research and engineering development. Job opportunities are available in industry and in architects' offices throughout the country. A student should select either the architectural or mechanical drawing option for the second year, depending on his particular field of interest.

Freshman Year					
	F	S			
Drawing 110, 111 .....	2	2	Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$
Drawing 156 .....		3	Health 130 .....		2
I.E. 196, 197 .....	2	2	History 170 .....	3	
Physics 105, 106 .....	3	3	Religion .....	2	2
English 111, 112 .....	3	3	E.T. 100 .....	1	
			Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$

Sophomore Year			
Architectural Drawing Option			
	F	S	
Drawing 210, 257 .....	2	2	
Drawing 255, 256 .....	3	2	
Drawing 355, 356 .....	3	3	
Drawing 455 .....		2	
I.E. 210, 411 .....	3	3	
E.T. 205, 125 .....	3	2	
Economics 461 .....	3		
Religion .....		4	
Total Hours .....	17	18	

Sophomore Year			
Mechanical Drawing Option			
	F	S	
Drawing 210, I.E. 230 ....	2	3	
Drawing 311 .....		3	
Drawing 449, 455 .....	3	2	
Drawing 410 .....	3		
I.E. 130, 131 .....	2	3	
I.E. 125 .....	2		
E.T. 206 .....		3	
Economics 461 .....	3		
Religion .....	2	2	
Total Hours .....	17	16	

### Light Building Construction Technology

Adviser: Max E. McKinnon

This curriculum offers instruction toward a two-year technical certificate in light building construction. It is designed to give the student the maximum amount of technical information and training to prepare him to become a successful building construction technician.

Graduates should find employment in the building construction occupations with increased opportunities for advancement in responsible positions in industry.

Freshman Year			
	F	S	
I.E. 105, 125 .....	2	2	
I.E. 100, 200 .....	3	3	
I.E. 139, 218 .....	2	2	
I.E. 196, 197 .....	2	2	
History 170 .....	3		
English 111, 112 .....	3	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	
Health 130 .....		2	
Religion .....	2	2	
E.T. 100 .....		1	
Total Hours .....	17 $\frac{1}{2}$	17 $\frac{1}{2}$	

Sophomore Year			
	F	S	
I.E. 341 .....		2	
I.E. 210, 211 .....	3	2	
I.E. 317 .....		2	
I.E. 411 .....		3	
C.E. 211, I.E. 201 .....	3	3	
Drawing 156, 255 .....	3	3	
Physics 105 .....	3		
Economics 461 .....	3		
Religion .....	2	2	
Total Hours .....	17	17	

### Industrial Electronics

Adviser: Ross J. McArthur

This curriculum provides a basic preparation for employment in a variety of occupations in the general field of electronics. Graduates of this program should have a good foundation in the principles of electronics, and should have considerable ability in operating, servicing, and directing the use of electronic equipment.

Freshman Year			
	F	S	
I.E. 240, E.T. 102 .....	3	3	
I.E. 196, 197 .....	2	2	
E.T. 100 .....	1		
Drawing 110, 111 .....	2	2	
Physics 105, 106 .....	3	3	
English 111, 112 .....	3	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	
Health 130 .....		2	
Religion .....	2	2	
Total Hours .....	16 $\frac{1}{2}$	17 $\frac{1}{2}$	

Sophomore Year			
	F	S	
E.T. 232, 231 .....	4	4	
E.T. 235, 236 .....	4	4	
I.E. 139 .....		2	
E.T. 228 .....	2		
Economics 461 .....		3	
History 170 .....	3		
Electives .....	2	2	
Religion .....	2	2	
Total Hours .....	17	17	

**Tool Design Technology**

Adviser: Dell K. Allen

This curriculum offers comprehensive training for a career as a technician in tool design and construction. It is planned to give the student theoretical as well as practical education in design and use of jigs, fixtures, cutting tools, and other manufacturing equipment.

Graduates should readily find employment as junior tool designers, engineering assistants, laboratory technicians, mechanical draftsmen, inspectors, estimators, or mechanical equipment salesmen.

Freshman Year			Sophomore Year		
	F	S		F	S
I.E. 130, 131 .....	2	3	I.E. 231, 230 .....	5	3
I.E. 125 .....	2		I.E. 240 .....		3
I.E. 196, 197 .....	2	2	I.E. 335, 333 .....	4	3
Drawing 111, 311 .....	2	3	Drawing 210, 410 .....	2	3
English 111, 112 .....	3	3	Physics 105, 106 .....	3	3
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Health 130 .....		2			
Religion .....	2	2	Total Hours .....	16	17
E.T. 100 .....		1			
History 170 .....	3				
Total Hours .....	16 $\frac{1}{2}$	16 $\frac{1}{2}$			

**Welding Technology**

Adviser: Lester Long

This curriculum offers comprehensive training for the preparation of welding technicians for industry. This is a rapidly expanding field and graduates should readily find employment with excellent opportunities for advancement as welding technicians, laboratory technicians, inspectors, equipment and service salesmen, and welders.

Freshman Year			Sophomore Year		
	F	S		F	S
I.E. 120, 125 .....	2	2	I.E. 221, 226 .....	5	5
I.E. 121, 126 .....	3	3	I.E. 222 .....		3
I.E. 130 .....		2	I.E. 335, 227 .....	2	3
I.E. 196, 197 .....	2	2	Physics 105, 106 .....	3	3
Drawing 110, 111 .....	2	2	History 170 .....	3	
English 111, 112 .....	3	3	Economics 461 .....	3	
Physical education .....	$\frac{1}{2}$	$\frac{1}{2}$	Religion .....	2	2
Health 130 .....	2				
Religion .....	2	2	Total Hours .....	18	16
E.T. 100 .....	1				
Total Hours .....	17 $\frac{1}{2}$	16 $\frac{1}{2}$			

**GENEALOGICAL RESEARCH TECHNOLOGY**

Supervisor: E. C. Jepps

With the increasing interest in genealogy, many technicians and specialists are needed to do genealogical research. Because of the shortage of professional help in this field there is a long waiting list of work to be done. The standards of completeness and accuracy required in genealogical research can best be met through adequate and careful training. This points out the need for competently trained leaders and instructors in genealogical research for the various stakes and wards of the Church.

Competent research workers are a great asset in developing individual genealogies, and genealogical research technicians are needed by private groups and organizations. Also, genealogical research is being done in the libraries of

most states and larger cities as well as national libraries, creating potential employment for trained genealogists and research workers. In addition many employment opportunities are now developing in genealogical societies. The need is increasing rapidly; qualified genealogical research technicians will continue to be in great demand for some time.

The following two-year program is designed to prepare research genealogical technicians qualified to meet this need. Also, students majoring in other fields might consider genealogy as their minor, if approved by their major department.

Freshman Year		Sophomore Year	
F	S	F	S
Genealogy 103 or Church Admin. 361 or 362 ....	3	Genealogy 220, 221** ..	3
Genealogy 110, 111 ....	3	Genealogy 295 .....	8
History 170 .....	3	Language or history* ....	4
Geography* .....	3	B.E.O.M. 101 .....	2
English 111, 112 .....	3	Instruction 406 .....	2
Physical education .....	$\frac{1}{2}$	Electives .....	3
Health 130 .....	2	Religion .....	2
Religion .....	2		
Electives .....	2	Total Hours .....	16
			17
Total Hours .....	16 $\frac{1}{2}$		

\*In area of specialization.

\*\*Or Genealogy 230 and 231.

## GENEALOGICAL RESEARCH TECHNOLOGY

### Lower Division Courses

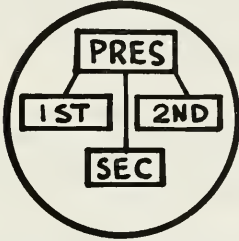
- 103. Research Procedures.** (3:3:0) F.S. (m) Wright  
A basic course in research procedures, analysis of pedigree problems, and the evaluation of record evidences.
- 110. American Genealogical Research I.** (3:3:0) F. (m) Prerequisite: Genealogy 103 or Church Admin. 361 or 362 (may be taken concurrently). Wright  
Sources available for genealogical research in America; what sources exist, where they are available, what genealogical information they contain, and how they can be related to scientific methods of obtaining and proving ancestral information.
- 111. American Genealogical Research II.** (3:3:0) S. (m) Prerequisite: Genealogy 110. Wright  
A further study of the sources: their limitations, their relationship one with another, and how they are integrated into actual research programs. A number of case files are studied and assignment exercises are based on individual pedigrees.
- 220. Genealogical Research in England and Wales I.** (3:3:0) F. (m) Prerequisite: Genealogy 103 or Church Admin. 361 or 362. Gardner  
Economic and social background, traditions, early L.D.S. Church records, civil registration, census returns, parish administration, parish registers, reading early English handwriting, bishop's transcripts, marriage licenses, nonconformist records, exercises on the practical application of the sources discussed.
- 221. Genealogical Research in England and Wales II.** (3:3:0) S. (m) Prerequisite: Genealogy 220. Gardner  
Probate records, military records, apprentice records, freeman's records, lay subsidies, Inquisitions Post Mortem, Feet of Fines, Manor Court Rolls, directories, Chancery Proceedings, records of early schools and universities, Quarter Sessions records, Visitations, poll books, exercises on the practical application of the sources discussed.

230. **Danish Ancestral Research I.** (3:3:0) F. (m) Prerequisite: Genealogy 103 or Church Admin. 361 or 362. Staff  
Genealogical records and their use in determining the Danish ancestral home of the immigrant to the United States. Records of Danish origin and of genealogical value are studied, including parish registers and census records.
231. **Danish Ancestral Research II.** (3:3:0) S. (m) Prerequisite: Genealogy 230. Staff  
An introduction to Danish probate records, land records, tax lists, civil marriages, vaccination lists, military records, and ecclesiastical sources. Also included are military and naval levying rolls.
295. **Applied Research Seminar.** (4-8:0:20-40) S.Su. Prerequisites: Genealogy 111, 221, or 231. Staff  
Basic practice in research procedure in the L.D.S. Genealogical Library under direct supervision of competent and experienced staff. Students will use all library facilities\* in completing research assignments.

\*Library facilities: Present research facilities at the Genealogical Society include, among other items, over 65,000 volumes of genealogical books, 150 microfilm reading machines, and 260,000 rolls of microfilm, which is equivalent to 1,500,000 volumes of genealogical records, or 400,000,000 pages.

# Theology and Church Administration

Assistant  
Professor: Turner (chairman, 220 S).  
Instructor: Bennett.



Courses in the Department of Theology and Church Administration may be applied toward the religion requirements of the University. An undergraduate major or minor is not offered in this department.

## THEOLOGY

### Lower Division Courses

- 230, 231. **The Gospel in Principle and Practice.** (2:2:0 ea.) F.S.Su. Home Study also. (G-R) Staff  
A consideration of the basic principles of the gospel of Jesus Christ in the light of the practical needs and problems of today's youth.
- 232, 233. **Missionary Approach to the Gospel.** (2:2:0 ea.) F.S.Su. Home Study also. (G-R) Bankhead, Ludlow, Pearson, Ricks  
Recommended for students contemplating an L.D.S. mission. Concerned with procedures used in explaining the restored gospel of Jesus Christ to friends and investigators.
- 234, 235. **Missionary Approach to the Gospel in French.** (2:2:0 ea.) F.S. (G-R) Lee  
Prerequisite: one year of French or equivalent.  
Consideration of the doctrines, scriptures, and techniques of effective missionary work for the L.D.S. Church.
- 236, 237. **Missionary Approach to the Gospel in German.** (2:2:0 ea.) F.S. (G-R) Watkins  
Prerequisite: one year of German or equivalent.  
Consideration of the doctrines, scriptures, and techniques of effective missionary work for the L.D.S. Church.
- 238, 239. **Missionary Approach to the Gospel in Spanish.** (2:2:0 ea.) F.S. (G-R) Hansen  
Prerequisite: one year of Spanish or equivalent.  
Consideration of the doctrines, scriptures, and techniques of effective missionary work for the L.D.S. Church.

### Upper Division Courses

- 331, 332. **Analysis of L.D.S. Teachings.** (2:2:0 ea.) F.S.Su. Home Study also. (G-R) Done, Doxey, Turner  
Distinctive doctrines and principles of the restored gospel of Jesus Christ.

435. **Mormonism and Modern Scientific Thought.** (2:2:0) F.S.Su. (G-R)

Nielsen

A consideration of significant theological-philosophical concepts in Mormonism as they relate to certain challenging areas of modern scientific assumption involving God, man, and the universe.

438. **Your Religious Problems.** (2:2:0) F.S.Su. (G-R)

Belnap

Consideration of problems pertaining to the individual student.

#### Advanced Undergraduate or Graduate Course

530. **L.D.S. Theology.** (2:2:0) F.S.Su.

Riddle, Turner

An advanced course for those desirous of exploring major theological and philosophical concepts of Mormonism in depth.

### CHURCH ADMINISTRATION

#### Upper Division Courses

361. **Genealogy.** (2:2:0) F.S.Su. Home Study also. (G-R)

Bennett

An elementary course in basic genealogical concepts, doctrinal background, essential record sources, modern methods of research, the pedigree chart, the family group sheet, numerous other genealogical forms and their uses, writing biographies and autobiographies, an introduction to the use of the Genealogical Association library, and one's book of remembrance.

362. **Genealogy.** (2:2:0) F.S.Su. Home Study also. (G-R)

Bennett

A survey course in methods of research, time-saving indexes, filing systems, wise use of various records, extending the personal pedigree, census records, court records, analysis of problems, and other more advanced genealogical problems.

365. **Applying Gospel Principles in Scouting.** (2:2:0) F.S. (G-R)

Packer

Deals with the role of scouting in the L.D.S. Church and how gospel principles may be applied in that program.

460. **Priesthood, Church Government, and Welfare.** (2:2:0) F.S.Su. (G-R)

Ballif, H. Clark, Doxey

Powers, authority, and functions of the priesthood and its role in Church government are considered in addition to the major historical, economic, and spiritual aspects of the L.D.S. Welfare Program.

Youth Leadership

Associate Professor: Packer (chairman, 215 SFH).



The Department of Youth Leadership provides a four-year program leading to a Bachelor of Science degree in youth leadership. It offers a definite curriculum designed to prepare men for successful careers as professional Boy Scout administrators and a broader program of general education, culture, and specialization calculated to help meet requirements for leadership in other youth agencies, public and private.

A second major objective of the department is to provide college men and women with skill, knowledge, and experience in a variety of youth leadership areas to the end that they may better serve their church and community by rendering skilled volunteer leadership to youth.

Degree in Youth Leadership

For a Bachelor of Science degree in youth leadership a student is required to take the following courses:

	Hours
Youth Leadership 305, 306, 312, 332, 342, 375, 410, 490, 491, 492 .....	21
Youth Leadership 172, 173, 174, 301, 302 .....	9

Equivalent experience in the subject matter of these courses will allow the student to select, in consultation with the adviser, alternate courses in recreation, business management, public relations, journalism, speech, human relationships and sociology.

Requirements for Youth Leadership Minor

For a minor in youth leadership 14 hours should be selected from the following courses:

Youth Leadership 172, 173, 174, 312, 332, 305, 306, 490, 491.

Suggested Program for Youth Leadership Majors

Freshman Year		Sophomore Year	
	Hours		Hours
Devotional and forum .....	2	Devotional and forum .....	2
English 111, 112 .....	6	History 170 .....	3
Health 130 .....	2	Physical education .....	1
Physical education .....	1	*Botany 205 .....	2
Youth Leadership 172 .....	2	*Recreation 337 .....	2
Speech 101, 102 .....	5	*Speech 121 .....	3
Business Education 101 .....	2	Business Education 220 .....	3
General education and religion..	14	Youth Leadership 173, 174 .....	4
		General education	
Total Hours .....	34	and religion .....	14
		Total Hours .....	34

Junior Year		Senior Year	
	Hours		Hours
Devotional and forum .....	2	Devotional and forum .....	2
Church Admin. 365, Bible 411 .....	4	History of Religion 453, 454 .....	4
Instruction 301, 406 .....	4	Journalism 561 .....	3
Business Education 325 .....	2	Business Management 420, 569..	6
Youth Leadership 301, 302 (summer) .....	3	Psychology 357, Sociology 316 ..	4
Youth Leadership 342, 375, 312, 332, 490 .....	11	Youth Leadership 305, 306, 410, 491, 492 .....	10
Electives .....	8	Electives .....	5
Total Hours .....	34	Total Hours .....	34

\*Recommended electives with general education credit.

### Alternate and Elective Concentration Courses

Careful attention to elective course opportunities will provide the youth leadership major with invaluable training calculated to help him meet the demands of his profession. Selection from the following courses is recommended:

Health Education 121; Business Management 420, 569; Business Education 101, 220, 325; Journalism 211, 561; Psychology 357; Instruction 301, 406; Speech 101, 102, 305, 307, 521; Botany 205; Dramatic Arts 121; Sociology 316, 383; Recreation 387, 502, 337; Physical Education 127, 131, 137, 164, 165, 166.

### Lower Division Courses

172. **Cub Scout Leadership.** (2:1:2) F. (m) Staff  
Designed to teach the organization, administration, and purpose of Cub Scouting as a basic experience of the American home. Lecture, demonstration, and laboratory participation.
173. **Boy Scout Leadership.** (2:1:2) F.S. (m) Staff  
Acquisition of techniques and skills designed to produce youth leadership and fellowship. Lecture, demonstration, and laboratory participation.
174. **Explorer Leadership.** (2:1:2) S. (m) Staff  
An examination of programming for the teenager. Lecture, demonstration, and laboratory participation.

### Upper Division Courses

301. **National Camp School.** (1:lecture and lab in an organized camp situation for one full week) F.Su. National Staff BSA  
Theory and application of principles of camp administration, camp aquatics, and camp program. Taught by National Council (Boy Scouts of America) at a selected local council camp. Recommended for youth leadership majors only.
302. **Summer Camp Administration.** (2-4:0:4-8 weeks) F.Su. Staff  
Provides an actual administrative experience as a staff member of a local council summer camp. The course may be extended to additional summer employment for some students. Selection of camps arranged for by the department. Required of youth leadership majors only.
- 305, 306. **Scouting Finance and Council Operating Committee Functions.** (3:3:0) F.S. (m) Packer  
Objectives and programs of local councils; the function and purpose of operating committees within the council and how they combine the national and local program features to serve institution, leader, and boy. Local council finance is emphasized.

- 312. District Committee and Commissioner Service.** (3:2:3) F. (m) Packer  
Combines the operation and function of a district committee of the local council and the duties and techniques associated with the service of commissioners to council, district, and institution. Laboratory opportunities are provided by the Utah National Parks Council.
- 332. Scouting Sponsors and Community Relationships.** (3:3:0) F. (Offered 1963-64 and alternate years) (m) Packer  
Examines the institutional acceptance of scouting as a major youth program in America and defines the relationships of the major religious and civic sponsors of scouting to the Boy Scouts of America.
- 342. American Youth Organization Development.** (2:2:0) F. (Offered 1962-63 and alternate years) Packer  
A comparative analysis of the major youth organizations of America; their aims, objectives, and contributions to the American society.
- 375. Executive Work Scheduling and Program Planning.** (2:2:0) S. (Offered 1963-64 and alternate years) Packer  
Methods and practices of executive work scheduling for youth agency administrators. Public and group leadership demands are examined and personal programs are developed to meet these demands.
- 378. Scouting Leadership for Women.** (2:2:0) S. Packer  
Designed primarily for women interested in skills and techniques that have application to service leadership. Particular attention is given to outdoor and activity experiences in cubbing, Guide Scouting, Girl Scouts, and Campfire Girls.
- 410. National and Local Council History and Development.** (2:2:0) S. (Offered 1962-63 and alternate years) Packer  
Traces the evolution of the program of Scouting in America and defines the organization, functions, and services of the national council to the local council.
- 490. Field Activity Course.** (1:1:0) F. (Offered 1962-63 and alternate years) (m) Packer  
A study and laboratory experience in traditional council events designed to win public acclaim, enrich program experience, and develop financial support for the local council.
- 491. Conference Planning Techniques.** (1:1:0) F. (Offered 1962-63 and alternate years) (m) Packer  
Theory and practice of planning conferences and various techniques of pre-conference involvement.
- 492. Seminar in Research Problems and Program Trends.** (1:1:0) F.S. 1962. Packer

**This course also counts in youth leadership:**

**Church Administration 365. Applying Gospel Principles to Scouting.** (2:2:0)

**Professors:** Beck (chairman, 365 B), Hayward, V. Tanner.

**Associate Professors:** Allen, Chapman, Frost, W. Tanner.

**Assistant Professors:** Allred, Murphy, Wood.

**Instructor:** Simmons.

## Zoology and Entomology



Zoology is the basic animal science. The courses offered in this department are designed to meet the needs of students of the University in the following ways:

1. Provide courses suitable to the general education requirements in the biological sciences.
2. Contribute toward the training of prospective teachers in the biological sciences.
3. Provide basic and advanced training for persons wishing to major and obtain a bachelor's, master's, or doctor's degree in zoology.
4. Offer service courses for the benefit of students majoring in other departments who need supporting work in the zoological sciences.
5. Furnish courses required in pre-professional work toward medicine, dentistry, and other medical sciences.

### Requirements for a Major

It is desirable that students select a major at the earliest possible date in their college program. A candidate for a bachelor's degree who elects to major in the Department of Zoology and Entomology will be assigned an adviser who will assist him in the organization of his entire program. The course of study must include (1) the general education requirements of the University, (2) the general departmental requirements, and (3) one of the optional sequences in zoology depending upon the student's special interests. Any modification of these requirements must be approved by the chairman of the department.

The general departmental requirements for all majors in zoology include courses 105, 176 or 376, 212, 213 or 363, 385, 496, and 497. Prospective majors who have completed a full year of biology in high school may omit Zoology 105 provided they pass an examination dealing with the general principles of biology.

### Optional Sequences

**Natural History.** This option is intended for students interested in the natural history, ecology, and geographical distribution of mammals, birds, reptiles, fishes, and invertebrates. Such training is preparatory for careers in game management, museum services, biological surveys, and fresh water or marine biology as they apply to the National Park Service, Fish and Wildlife Service, and other agencies. Courses recommended for this sequence are 230, 365, 372, 451, and additional hours selected from 332, 343, 345, 346, 347, 357, 363, 417, and 421 with the approval of the departmental adviser. Supporting courses in botany, the physical sciences, and mathematics should be included.

**Anatomy and Experimental Zoology.** This division is designed for students who plan advanced training in such fields as comparative anatomy, histology, physiology, genetics, radiation biology, and embryology. This training may lead toward university teaching, research, and medical sciences. The following courses are recommended: 363, 365, 370, 373, and at least 3 hours selected from 230, 417, 561, 573, and 578 with the approval of the departmental adviser. Supporting courses in bacteriology, botany, chemistry, physics, and mathematics should also be taken.

**Parasitology and Epidemiology.** This option is designed for students who plan to work in such fields as helminthology, medical arthropodology, and protozoology. This training may be applied to public health services, institutional research, and private practice. The following courses are recommended: 230, 365, 417, 421, 433, and at least 6 hours selected from 330, 332, 345, 346, 347, 363, 370, 372, and 451 with the approval of the departmental adviser. Supporting courses should be selected in bacteriology, botany, chemistry, physics, and mathematics.

**Entomology.** This option is designed for students planning to work in insect taxonomy, morphology, natural history, and medical, agricultural, or other aspects of applied entomology. Career opportunities are available in teaching, research, industrial and governmental organizations, or as technicians in museums, quarantine inspection, insect control, and other special services. Recommended courses for this option are as follows: 230, 330, 332, 334, 443, and at least 4 hours selected from 363, 365, 370, 372, 421, and 451 with the approval of the departmental adviser. Supporting courses in bacteriology, botany, chemistry, and mathematics should also be taken.

**Basic Medical Sciences.** It is strongly recommended that pre-medical and pre-dental students receive the baccalaureate degree in one of the above options before entering professional school. For those students who complete only three years of college before transferring to professional school the following option is designed. Many medical and dental schools require that the applicant, if he does not already possess the baccalaureate degree, be granted one by his parent institution (B.Y.U.) at the end of his first year in professional school. Credits earned during the first year may be transferred back to B.Y.U. and count toward the fulfillment of the Zoology Department requirements for graduation. A student pursuing this option who is not admitted to professional school after the third year should follow course work at B.Y.U. during the fourth year so as to be eligible to receive a degree under one of the other options in zoology.

All of the requirements listed under graduation in this catalog including the general education program must be completed before transfer at the end of the third year except for the following modifications:

Total amount of credit .....	93 hours
Upper division credit (minimum at B.Y.U.) .....	20 hours

Requirements for a major:

- a. Zoology 105, 176 or 376, 212, 213 or 363, 385 ..... 16 hours  
(Senior seminar may be omitted.)
- b. Satisfactory completion of the first year in an accredited medical or dental school.
- c. Supporting courses in other departments should include mathematics (5 hours) and physics (8 hours).

Requirements for a minor:

Chemistry (including organic) .....	16 hours
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### Major and Minor for Secondary Teachers

The preparation and certification of teachers in biology in secondary schools is a cooperative program between the departments dealing with the biological sciences and the College of Education. Prospective biology teachers should complete either a zoology major and a botany minor, or a botany major and zoology minor.

Students who have had a year of high school biology and who pass the qualifying examination in zoology for beginning students may select three other hours of zoology in place of Zoology 105 to bring the total credit up to 32 hours for the major and 17 hours for the minor.

**32-hour list (Major).** 105, 176 or 376, 212, 213 or 363, 230, 261, 372, 451; and sufficient hours selected from 343 or 345 and 346 or 347 to bring the total to 32 hours or more.

**17-hour list (Minor).** 105, 230, 261, 343 or 345, 346 or 347, and 372.

**Additional requirements.** Students seeking a teaching major in zoology are required to complete the following courses in related fields: Bacteriology 321 and 322; Chemistry 101 and 102, or 105 and 106, or 111 and 112; and Geology 111.

### Omission of Zoology 105

Students who have had a year of high school biology and who pass the qualifying examination in zoology for beginning students may select three other hours of zoology in place of Zoology 105.

### Requirements for Graduate Degrees

A prospective graduate major is expected to satisfy all the general requirements for advanced degrees outlined by the Graduate School. Before or during the first semester in which the student is officially admitted to graduate study in the department, the departmental Graduate Standards Committee will administer an examination designed to explore his academic background and aptitude. Recommendations to assure adequate depth and breadth of training based on an evaluation of this examination and his undergraduate record of courses will be used by the advisory committee in planning his program of graduate study. Deviations from these recommendations must be approved by the Graduate Standards Committee. Prior to the selection and approval of the advisory committee, the Graduate Standards Committee will direct the student's program. The responsibility for complying with all regulations of the Graduate School and of the department rests with the student.

The Department of Zoology and Entomology offers work leading toward the master's degree and the Doctor of Philosophy degree in zoology or in entomology. A student may major in either of these fields. Either one or two minors may be selected, and it is recommended that at least one of the minors be chosen from a department other than zoology and entomology.

A student may do research in specific areas in zoology or in entomology. In zoology advanced training and research is available in ecology, embryology, genetics, herpetology, histology, ichthyology, mammalogy, invertebrate zoology, ornithology, parasitology, physiology, radiation biology, and vertebrate anatomy. In entomology, advanced training and research may be pursued in general entomology, taxonomy, morphology, ecology, and medical entomology.

### Master's Degree

Master of Science and Master of Arts degrees are offered by the Department of Zoology and Entomology. The general requirements indicated above apply to students seeking these degrees. Master's degree candidates are also expected to take Zoology 696 and 697 in addition to other courses specified by their special committee.

### Doctor of Philosophy Degree

Required courses for each candidate for this degree include the following: Zoology 510, 540, 555, 578, 610, 680, 696, and 697. A comprehensive preliminary examination, oral and written, covering all areas of basic zoology or entomology with emphasis on the major and minor fields must be successfully completed before advancement to candidacy. This examination normally will be taken approximately one academic year prior to granting of the degree. The candidate will be

expected to spend a summer term or equivalent away from Brigham Young University at an approved laboratory or field station.

### Lower Division Courses

- 105. Animal Biology.** (3:2:3) F.S.Su. (G-BS m) Staff  
A basic principles course in animal biology.
- 176. Heredity.** (3:3:0) F.S.Su. (G-BS m) Prerequisite: Zoology 105, or Botany 101, or equivalent. Allen  
Principles of inheritance. Designed for students not majoring in biological science. Biology majors should take course 376.
- 212. Invertebrate Zoology.** (4:1:6) F.S. (G-BS m) Prerequisite: Zoology 105. Beck
- 213. Vertebrate Zoology.** (4:2:4) F.S. (G-BS m) Prerequisite: Zoology 105 or equivalent. Hayward  
A basic course in the structure, classification, and natural history of the vertebrates.
- 230. Introductory Entomology.** (5:3:4) F.S. (m) Prerequisite: Zoology 105 or equivalent. V. Tanner  
The beginning course in the structure, classification, and life histories of the classes of arthropods.
- 261. Human Anatomy and Physiology.** (4:2:4) F.S. (G-BS m) Prerequisite: Zoology 105 or equivalent. Chapman  
A basic course in tissue and organ structure and function.

### Upper Division Courses

- 315. Natural History.** (3:2:2) S. (G-BS) Prerequisite: Zoology 105, or Botany 101, or equivalent. Frost  
Designed for the non-biology majors and dealing with common animals.
- 330. Insect Morphology.** (5:2:6) F. Prerequisite: Zoology 230. Wood  
An introduction to the principles of insect morphology. Both external and internal anatomy are studied.
- 332. Insect Classification.** (4:1:6) S. Prerequisite: Zoology 230. Wood  
The basic principles of animal taxonomy with special emphasis on insects. Students are advised to consult the instructor and begin collecting insects prior to registration.
- 334. Economic Entomology.** (3:2:2) S. (m) Prerequisite: Zoology 105 or equivalent. Wood  
Life histories and control of insect pests, exclusive of medically important forms.
- 343. Ichthyology.** (2:0:4) S. (m) Prerequisite: Zoology 213. V. Tanner  
The anatomy, classification, and distribution of the fishes of the Great Basin.
- 345. Herpetology.** (2:0:4) S. (m) Prerequisite: Zoology 213. W. Tanner  
The classification, distribution, and natural history of reptiles and amphibians.
- 346. Ornithology.** (2:0:4) S. (m) Prerequisite: Zoology 213. Hayward  
The classification, field and laboratory identification, and natural history of birds.
- 347. Mammalogy.** (2:0:4) F. (m) Prerequisite: Zoology 213. Hayward  
The classification, field and laboratory identification, and natural history of mammals.
- 357. Wildlife Conservation.** (2:2:0) F. Frost  
Conservation of natural resources particularly as they relate to animals.

- 363. Comparative Vertebrate Anatomy.** (4:2:4) S. Prerequisite: Zoology 105 or equivalent. W. Tanner  
A comparison of the body systems of the major vertebrate groups from the fishes through the mammals.
- 365. Animal Physiology.** (4:2:4) S. Prerequisites: Zoology 213 and Chemistry 111. Chapman  
The functions of the body systems of animals.
- 370. Vertebrate Histology.** (3:1:4) S. Prerequisite: Zoology 213.. Chapman  
Microscopic studies of the tissues and organs of vertebrates.
- 371. Histological Technique.** (2:0:4) F. Prerequisite: Zoology 105. Chapman  
Preparation of microscopic slides of tissues.
- 372. Biological Techniques.** (1:0:3) F. (m) Allred  
Designed to help prospective teachers and biologists in the techniques of preparing biological specimens and materials for demonstration or study.
- 373. Vertebrate Embryology.** (4:2:6) F. Prerequisite: Zoology 213 or 363. Allen  
Development of the body systems of vertebrates with special emphasis on the frog, chick, and pig.
- 376. Genetics.** (4:3:3) S. (G-BS) Prerequisite: Zoology 105 or Botany 101, or equivalent. Allen  
An introductory course designed for majors in biological science.
- 385. History of Biology.** (2:2:0) F. V. Tanner  
The development of biological thought from the Grecian period to the present.
- 417. Parasitology.** (3:1:4) F. Prerequisite: Zoology 105 or equivalent. W. Tanner  
Animals that are internal parasites of man and domestic animals.
- 421. Arthropodology.** (2:0:6) F. Prerequisite: Zoology 230. Allred  
Structure, identification, and natural history of local arthropods other than insects.
- 433. Medical Entomology.** (2:0:4) S. Prerequisite: Zoology 230. Allred  
Arthropods that attack man and domestic animals and transmit pathogenic organisms and other parasites.
- 451. Animal Ecology.** (3:2:3) S. Prerequisites: Zoology 212, 213, 230; recommended: Botany 110 and Zoology 421. Murphy  
The principles of ecology as applied particularly to animals in natural communities. Saturday field trips.
- 496, 497. Senior Year Seminar.** (1:1:0) F.S. Staff  
A review of current trends and concepts in zoology.

#### Advanced Undergraduate or Graduate Courses

- 510. Zoological Literature.** (2:1:2) S. Wood  
An introduction to the literature of zoology designed to prepare the student for research and thesis writing.
- 524. Acarology.** (2:0:6) F. (Offered 1962-63 and alternate years) Prerequisite: Zoology 421. Allred
- 531. Insect Physiology.** (2:1:2) S. (Offered alternate years) Wood
- 533. Field Entomology.** (2:0:4) Su. Prerequisite: consent of instructor. Beck, Wood
- 538. Immature Insects.** (2:0:4) S. V. Tanner
- 540. Aquatic Ecology.** (3:2:3) F. Prerequisites: Zoology 451 or Botany 450. Murphy

555. **Principles of Zoogeography.** (2:2:0) F. W. Tanner
561. **Advanced Vertebrate Anatomy.** (3:1:4) F.S. Prerequisite: Zoology 363.  
Chapman, W. Tanner
573. **Experimental Embryology.** (2:1:3) S. (Offered alternate years) Prerequisite:  
Zoology 373. Allen
576. **Advanced Genetics.** (2:2:0) F. (Offered 1962-63 and alternate years) Pre-  
requisite: Zoology 376 or Botany 376. Allen
578. **Radiation Biology.** (2:2:0) F. (Offered alternate years) Prerequisites: Chem-  
istry 112, Physics 202, Zoology 365. Allen
579. **Radiation Biology Laboratory.** (1:0:3) F. (Offered alternate years) Pre-  
requisite: concurrent registration in Zoology 578. Allen
591. **Special Problems in Zoology.** (1-2:Arr.:Arr.) F.S.Su. Staff

### Graduate Courses

610. **Systematic Zoology.** (2:1:2) F. V. Tanner
612. **Advanced Invertebrate Zoology.** (2:0:4) F. Prerequisite: Zoology 540. Beck
625. **Advanced Medical Entomology.** (2:0:4) S. Prerequisites: Zoology 332, 346,  
347. Beck
628. **Ecology of Parasitic Arthropods.** (2:1:3) S. (Offered 1963-64 and alternate  
years) Prerequisites: Zoology 433, 451. Allred
639. **History of Entomology.** (1:1:0) F. V. Tanner
643. **Advanced Ichthyology.** (2:1:2) F. (Offered alternate years) Prerequisite:  
Zoology 343. V. Tanner
645. **Advanced Herpetology.** (2:1:2) S. (Offered alternate years) Prerequisite:  
Zoology 345. W. Tanner
646. **Advanced Topics in Ornithology and Mammalogy.** (2:2:0) F. (Offered 1962-  
63 and alternate years) Prerequisites: Zoology 346, 347. Hayward
650. **Animal Communities.** (2:2:0) S. (Offered alternate years) Prerequisite:  
Zoology 451. Murphy
662. **Advanced Physiology.** (2:1:2) F.S. Prerequisite: Zoology 365. Staff
673. **Advanced Embryology.** (2:2:0) S. (Offered 1962-63 and alternate years)  
Allen
680. **Theoretical Zoology.** (2:2:0) S. Prerequisite: consent of instructor.  
W. Tanner
691. **Research.** (1-4:Arr.:Arr.) F.S.Su. Staff
- 696, 697. **Graduate Seminar.** (1:1:0 ea.) F.S. Staff
699. **Thesis for Master's Degree.** (2-4:Arr.:Arr.) F.S.Su. Staff
797. **Research.** (2-4:Arr.:Arr.) F.S.Su. Staff
799. **Dissertation for Ph.D. Degree.** (Arr.) F.S.Su. Staff

# Adult Education and Extension Services

Extension Representative in the Administrative Council: Harvey L. Taylor.

Office of the Dean: Harold Glen Clark, dean; Phileon B. Robinson, Jr., assistant to dean; Richard H. Henstrom, academic and center coordinator.

Department of Audio-Visual Communication: LeRoy R. Lindeman, chairman; Lee Miller, production supervisor; Lynn Howarth, circulation supervisor; Charles Curtis, selection supervisor; Richard Benson, marketing supervisor.

Department of Community Education: D. Chris Poulos, chairman; W. Grant Lee, supervisor, Community Credit Courses and Telecourses; Rulon B. Ashcroft, supervisor, Community Lectures and Courses.

Department of Extension Publications: William G. Leach, chairman.

Department of Home Study: Lula Clegg, chairman.

Department of Travel Study: Robert C. Taylor, chairman.

B.Y.U.-Los Angeles Adult Education Center: R. Wayne Shute, chairman.

B.Y.U.-Ogden Adult Education Center: George S. Haslam, chairman.

B.Y.U.-Provo Campus Adult Education Center: Robert H. Teichert, acting chairman; Irene Webb, supervisor, Evening School; Thomas James, supervisor, Special Courses and Conferences.

B.Y.U.-Ricks Adult Education Center: J. Kenneth Thatcher, chairman; Seth H. Bills, supervisor, B.Y.U.-Ricks Campus Office.

B.Y.U.-Salt Lake Adult Education Center: Lynn M. Hilton, chairman; Russell T. McDonald, supervisor of courses for business and industry; Robert DeBry, manager of in-center classes; Keith L. Smith, supervisor of courses for schools and churches.

## GENERAL INFORMATION

The purpose of the Extension Services is to bring the educational programs and services of the regular University day school to adults who are not now receiving them. It was called the Extension Division when it was established in 1921. At that time its program combined publicity, off-campus programs, lectures, and community services with the more formal classroom offerings and credit courses both by correspondence and lecture.

Some of these earlier functions have been assumed, in part, by special committees or departments in the University. New services, such as motion pictures and audio-visual aids, have been expanded or added to the Extension Services. Full-time employees have replaced those who formerly did extension work during their off-time hours. The extent of the territory served has increased. Bulletins of information on evening school courses, home study subjects, lectures, and publications are available upon request.

Many teachers of the courses scheduled through the Extension Services are chosen from the regular B.Y.U. faculty. In addition, a special part-time off-campus faculty is available and is listed in the special instructors or lecturers section of this catalog.

### WHO MAY ENROLL IN ADULT EDUCATION CLASSES

Anyone having the proper background may register for noncredit courses. The purpose of adult education is to serve the needs of adult students.

Non-high school graduates should not register for university credit courses without prior approval; however, all persons over nineteen years of age are eligible to register for such courses.

Undergraduate students may not register for graduate classes.

Acceptance as a student in an extension course does not mean that the individual concerned has been accepted by Brigham Young University or any other university on a degree-seeking basis. It is the responsibility of each student to gain admission to the university of his choice as a degree-seeking student, through the normal procedures listed in the university catalog. At B.Y.U. this may be accomplished by contacting the Office of Admissions and Records. All credit received prior to the student's formal admission will then be evaluated.

The Adult Education and Extension Services at B.Y.U. takes no responsibility for the acceptance of a student's credit courses toward a degree or for accreditation purposes of any nature at any university. Clearing these courses for accreditation of any kind is the responsibility of the student. Such clearance should be made before the student enrolls in the course.

No student who has been suspended from a university will be allowed to register for credit courses. However, a suspended student upon proper representation may be accepted as a Home Study student. Students registering under false pretenses will forfeit any credit received.

### AUDIO-VISUAL COMMUNICATION

The Brigham Young University Department of Audio-Visual Communication is one of the largest and most complete teaching materials centers in the nation. Its purpose is to serve departments of the University, various church organizations, public schools, and industry with the finest materials for instruction that can be obtained.

To provide more efficient and effective service the Department of Audio-Visual Communication has divided its various functions into the following sections:

**Circulation Section.** This section provides audio-visual materials and equipment for use by Brigham Young University faculty and students, B.Y.U. campus and other stakes and wards, public schools, and interested individuals and groups.

The rental library contains more than 6,000 16mm sound motion pictures, 35mm filmstrips, 2" x 2" color slides, sets of study prints, and teaching kits. These materials cover a wide variety of both educational and religious subjects. A few films of an entertainment nature are also available. B.Y.U. Motion Picture Production Department releases are among the films available. All films are electronically inspected, cleaned, and repaired between uses.

The magnetic tape library has more than 2,000 titles. This includes such items as addresses given at the General Conferences of the Church of Jesus Christ of Latter-day Saints, B.Y.U. devotional assembly talks, and other important speeches given on campus. In addition, taped radio programs of an educational nature are available. Tapes may be obtained on a rental basis, or duplicated tapes may be purchased.

All B.Y.U. audio-visual equipment is administered through this section. New equipment is thoroughly tested before acquisition. A professional repair and maintenance service is provided.

**Marketing Section.** The function of this section is to effectively promote the facilities of the Department of Audio-Visual Communication, to select and maintain an adequate supply of A-V materials and supplies, and to supervise the marketing of B.Y.U. produced films and graphic teaching materials.

**Production Section.** This section is divided into four areas: (1) graphic art work, (2) photographic, (3) public address services, and (4) recording and tape duplicating services.

The Production Section provides these services primarily for campus departments and for use of church groups and schools. Complete art services are available including layouts and illustrations as well as the production of custom instructional materials. Research and development of teaching instructional materials for use in church groups and correlations with various lessons are also provided. Public address facilities are available for departments and student groups.

**Selection and Utilization Section.** This section is responsible for the selection, classification, cataloging and shelving of materials in the audio-visual library, and in addition, provides assistance to faculty members and student teachers in the selection and proper utilization of materials for classroom use.

Further information may be obtained by writing or calling the Department of Audio-Visual Communication. Catalog and supplementary bulletins listing the materials available, conditions of service, and rental rates are available.

## COMMUNITY EDUCATION

The Community Education Department of the Adult Education and Extension Services has sections which service those areas not already served by a B.Y.U. adult education center.

Descriptions of these sections are listed below. More detailed information and catalogs may be obtained by writing Community Education, Adult Education and Extension Services, Brigham Young University, Provo, Utah.

**Community Credit.** A request for a credit course is filled by the scheduling of a University teacher to travel to an off-campus location to conduct the course. Credit courses provide regular Brigham Young University credit and may be used to renew a teaching certificate, to apply toward a degree, or to broaden one's intellectual and spiritual horizons. (Ordinarily such classes meet one evening a week for eleven weeks. A wide choice of courses is available. Courses listed in this catalog, subject to the approval of the dean and department chairman concerned, may be scheduled off campus.)

**Telecourses.** Brigham Young University provides courses through educational television. The school has sponsored several courses over both educational and commercial television facilities. It is hoped that the general public will indicate their interest in B.Y.U. telecourses for credit and noncredit. Further information is available upon request.

**Community Lectures and Courses.** The Community Lectures and Courses section of the Adult Education and Extension Services was created to present noncredit programs off-campus—lecture series, institutes, classes appealing to particular interest groups, conferences, forums, and special promotions. The varied curriculum includes programs in religion, the fine arts, engineering, athletics, and many specialized fields. Since this section is on a noncredit basis, its program need not be concerned specifically with filling requirements, but may be geared to the special needs and desires of the groups. Presentations are informative and informal, but of high academic quality. Persons desiring courses or lectures to be presented in their locale may initiate them by contacting this office.

**Community Leadership Weeks.** The leadership week held annually on the Brigham Young University campus has gained a nationwide reputation. As the University expands its services, this program is being extended to other areas of the Church. Leadership week programs have been approved for eighteen different localities in Utah, Arizona, California, Oregon, Washington, and Idaho. In addition, new one-day leadership programs have been approved for communities in the state of Utah.

## EXTENSION PUBLICATIONS

The Extension Publications Department produces numerous lectures, pamphlets, and other material for distribution to students, faculty, alumni, and patrons of the University. The goal of this service is adult education through the printed page. These materials are sold at cost. The following categories will indicate the kinds of publications available:

**Speeches.** Most B.Y.U. devotional talks given by General Authorities and other Church leaders and forum addresses given by notable guests of the University, usually men of national or world-wide fame, are reproduced in mimeographed form. At the end of each school year, complete bound sets of the assembly speeches may be purchased. These are particularly useful in ward and home libraries.

**Leadership Week Lectures.** Numerous publications are available which are based on the great variety of subjects discussed in the leadership weeks held on the campus and in other areas. Missionaries, teachers in Church auxiliaries, speakers, and students of the scriptures find these publications stimulating because of the timely stories, interpretations of current events, faith-promoting experiences, and supplementary instructional material which they contain.

**Special Lecture Series.** During each school year, many lectures are given which would be of interest outside of the classrooms or limited meetings in which they originate. Several of these lectures are available in mimeographed form. Examples of those available are "Know Your Doctrine and Covenants," "The Trial of the Stick of Joseph," "Eden to Egypt," and "Heroines of the Church."

**Pamphlets.** Printed booklets are now available in the following six series. Only a brief example of each series is indicated:

Religious Life Series: "Parents and Children—Look to Your Homes," by President David O. McKay, and "Marriage—An Everlasting Covenant," by Elder Harold B. Lee.

Apostle Speaks to Youth Series: "Chastity," by Elder Mark E. Petersen, and "Tragedy or Destiny," by Elder Spencer W. Kimball.

Word of Wisdom Series: "Tobacco and Cancer," by Dr. Alton Ochsner. Others are to appear in the future.

Family Life Series: "Family Fun With Games," by Israel Heaton, and "What To Do When . . .," by Jean Kunz.

General Interest Pamphlets: "Principles and Practices of Paying Tithing," by President Ernest L. Wilkinson, and "Food and Savings for Survival," by Presidency, East Sharon Stake High Priests Quorum.

Public Affairs Pamphlets: A great many publications have been obtained from other sources and are made available through this department. They pertain to human development and family life. More than sixty titles are included in the general subject areas of expectant parents, infancy, pre-school children, nursery school, the grade school years, adolescence, courtship and marriage, family life, sex education, mental health, and basic viewpoints in child guidance.

**Books.** Two books are currently sold through this department: "Our Leaders Speak," a compilation of eternal truths spoken at Brigham Young University by several of the General Authorities, and "Successful Leadership," a compilation of outstanding talks given in the University's Executive Lecture Series wherein nationally recognized business leaders define their experienced paths to success and make recommendations for successful futures in the lives of others. Other books will be added in the future. The department also serves as a mail order outlet for the University bookstore.

For a free catalog listing all available publications and their prices, write to Extension Publications, Brigham Young University, Provo, Utah.

## HOME STUDY

Adult Education and Extension Services offers Home Study courses to aid in widening the educational horizons of the many people who cannot take college work in residence.

**What is it?** Home Study is education by mail—instruction with a personal touch.

**Why Home Study?** Home Study is for those who cannot take courses in residence. This department provides courses required for entrance requirements, courses needed to complete high school, teacher certification, courses for those serving their country in the armed forces, or for Korean veterans who wish to maintain their entitlement, for people working in industry who wish to acquire broader culture or to improve their skills, for professional people with a desire for continued intellectual and professional progress, and for those desirous of pursuing some course for personal development and interest.

**Catalog.** A Home Study catalog is free to anyone who wishes detailed information on all courses, fees, and registration.

**USAFI and Korean Veterans.** Brigham Young University has been approved to offer Home Study courses to the men and women in the armed forces and to Korean veterans.

**Gifted High School Students.** College courses for gifted high school seniors are offered. The purpose of this program is to supplement the curriculum for gifted high school seniors who have the time and ability to pursue a college course during their senior high school year.

**Credit.** The number of credit hours of Home Study course work that will apply toward graduation requirements is limited to 24 semester hours.

**Examinations.** Examinations are required in all correspondence courses unless otherwise stipulated.

### TRAVEL STUDY

B.Y.U. travel-study programs are designed for students who wish to increase their knowledge and understanding of their own nation and of other lands and peoples through purposeful, educational travel under the direction of the University. Those who participate must be properly enrolled. Adults off campus, as well as individuals on campus, may qualify as students in this program. Participants must adhere to standards of the Church of Jesus Christ of Latter-day Saints.

All of the Brigham Young University travel-study programs are noncommercial, nonprofit, educational projects. They are sponsored by a university which recognizes the value of organized educational travel experience and senses the importance of broadening cultural horizons and promoting international understanding and good will.

College credit is provided to all program participants who complete the study course as outlined by the academic department which co-sponsors the travel-study program.

### Anticipated B.Y.U. 1963-64 Summer Programs

#### Foreign Residence Programs

1. The English tradition
2. French language study in France
3. French language study in Quebec
4. German language study in Austria
5. Spanish language study in Spain
6. Spanish language study in Mexico
7. Japanese language and culture study in Japan

#### Traveling Seminars

8. Peoples and cultures of Europe "A" (South)
9. Peoples and cultures of Europe "B" (North)
10. Peoples and cultures of Europe "C" (student)
11. British genealogical program
12. Book of Mormon lands

- 13. Bible lands
- 14. Annual Church History program
- 15. Hawaiian socio-cultural program
- \*16. Circle South America
- \*\*17. 'Round the world
- \*18. Pacific-Orient circle
- \*1963 only
- \*\*1964 only

For the current status of each program and detailed information, write to Department of Travel Study, Brigham Young University, Provo, Utah.

### B.Y.U. ADULT EDUCATION CENTERS

Sensing the obligation of the Church University to provide education opportunities in harmony with L.D.S. standards for persons away from Provo, the Board of Trustees has established adult education centers. These centers offer the same services of adult education to the people of the center's area, including leadership week, as those offered to people who live near Brigham Young University. Any student expecting to earn a degree from B.Y.U. may do much of his work at an adult education center, but at least 20 semester credit hours must be earned on the campus in Provo.

#### B.Y.U.-Provo Campus Adult Education Center

All courses conducted on the Provo campus by the Adult Education and Extension Services are conducted through the B.Y.U.-Provo Campus Adult Education Center. Flexibility of programming is maintained to meet specific needs of adults and special groups. Business, industrial, civic, social, Church, and educational institutions are encouraged to contact this office if they desire special adult instruction. The units of this center are listed below:

**Evening School.** On week-day evenings, classes are conducted on campus in areas of interest to adults who desire to improve or enrich their lives through part-time education.

Regular college credit equivalent to daytime classes is given for all evening school classes. Anyone wishing to do so may take a class on a noncredit basis as an auditor.

Veterans are eligible to enroll under the G.I. Bill if they meet the eligibility requirements of the Veterans' Administration.

A class schedule of all classes offered is published each semester. These class schedules, giving detailed information about all procedures, are available free of charge upon request. Courses listed in the Evening School schedule which do not receive ten or more registrations will be cancelled. Students who have registered in cancelled classes will be notified and invited to join other classes or will be given a full refund.

At scheduled times during each registration period, trained counselors are available who will aid students in making educational and vocational plans or in working through related personal problems. There is no charge or obligation to the student for these services.

Day students may enroll in Evening School classes on their regular registration card by picking up class cards marked "Section 90." An extra fee of \$3.00 per credit hour is charged the day school student for these classes.

One dollar is charged for each change slip presented after the first week of the semester unless the action is caused by the cancellation of an Evening School class.

Each student registered through Extension Services who discontinues attendance at class must use the proper procedure to withdraw by coming to the extension center.

A pro-rated refund of tuition fees will be made to those who withdraw properly from evening classes during the first four weeks of the semester. There is no refund for withdrawals occurring after the fourth week of the semester.

Students registering for evening classes only, register from 5:00 to 9:00 p.m. on the dates announced in current schedules.

**Special Courses and Conferences.** This section, organized to meet the academic needs and desires of many different age and educational background groups, provides flexible, varied credit and noncredit programs on the Brigham Young University campus. It offers courses either for specific interest groups or for the public at large.

Offerings, presented on a high academic level, are informative in nature, yet informal and flexible as to content and presentation. Courses are generally six to ten weeks in length.

The instructional staff of Special Courses and Conferences is composed of members of the regular B.Y.U. faculty and other professional and academic specialists. Tuition fees vary according to the length of the course or the special expenses which may be involved. Persons representing groups which desire special courses or lectures on the B.Y.U. campus may have such courses initiated by contacting this department.

The Special Courses and Conferences section presents programs in the following categories:

**Conferences.** Programs which are conducted for professional groups in concentrated, intensive sessions, usually over a period of one day to one week. These groups often hold business meetings in addition to considering academic materials.

**Workshops and Clinics.** Programs which involve a high degree of participation and activity by registrants and which include learning of professional and avocational skills.

**Special Courses.** Credit or noncredit courses which do not fall into the administrative areas of regular classes or of evening school.

**Lectures.** Short discourses on various academic subjects, sometimes presented in a series or singly.

**Seminars.** Courses for groups of supervised students or professional persons doing research or advanced study.

**On-Campus Leadership Week.** For thirty-eight years, adults from all walks of life have spent their vacations or other spare time attending the five-day festival of learning at Brigham Young University. All of the colleges of the University, through their faculties and off-campus consultants, provide selected educational experiences which help members of the Church and other patrons of the University become better leaders in the professions, the home, the community, and the Church. Leadership week is leadership training for everyone, since all in the home are leaders or potential leaders. A few of the areas of instruction are these: human relations, scientific advancements, the world of business, better teaching methods, music, drama and speech activities, teen-age problems, and handicraft arts. Instruction in genealogy, the scriptures, and religion lectures from the General Authorities and others also add greatly to the interest and value of leadership week. Devotional assemblies, evening entertainments, tours, lectures, demonstrations, and workshops enhance the offering of this week. A special youth program is included for those 12-17 years of age.

### **B.Y.U.-Ricks Adult Education Center**

The first center to be established was at Rexburg, Idaho, in July of 1956. In January of 1959, the center headquarters were moved from Ricks College to 160 North Holmes Avenue, Idaho Falls, Idaho. A sub-center is maintained at Ricks College in Rexburg. The center provides off-campus courses, evening school, summer school, leadership week, and special programs. On November 15, 1959, a

branch of the Department of Audio-Visual Communication of Brigham Young University was established at the B.Y.U.-Ricks Center. This service is under the direction of the Rexburg office, and is one more important step in the continued expansion of the B.Y.U.-Ricks Center. The services of this center have stretched as far as Nampa, Idaho, on the west and Afton, Wyoming, on the east to offer short courses and credit classes.

#### **B.Y.U.-Ogden Adult Education Center**

The Ogden Center was officially opened August 10, 1957, to provide the people in and near Ogden with some of the advantages enjoyed by those living close to the Brigham Young University campus. The center provides academic courses in upper division and graduate work and informal courses, lectures, workshops, programs and leadership week offerings. The center draws its faculty from B.Y.U. and professionally qualified persons living in the Ogden area. Local instructors are approved by the B.Y.U. administration in the same manner used in employing regular full-time faculty members. The center headquarters is at 555-24th Street, Ogden, Utah.

#### **B.Y.U.-Salt Lake Adult Education Center**

On January 1, 1959, the building occupied formerly by the McCune School of Music and Art, 200 North Main, was opened as the third B.Y.U. adult education center. Its program follows the pattern established in other centers. Courses and programs are offered in religion, genealogy, speech, history, recreation, writing, art, education, and other fields. Special programs are organized for industry, commerce, and church groups where requested. A forum assembly program was also added in the fall of 1959 with noted speakers participating. Full information may be obtained by phoning Salt Lake City, DA 2-1656. A growing community leadership program is held each year for people in the Salt Lake area.

#### **B.Y.U.-Los Angeles Adult Education Center**

The newest B.Y.U. adult education center was established in Southern California, and is located at 3141 West Century Boulevard, Suite 9, Inglewood, California. This center offers all of the major programs of the other adult education centers. From the center, people in Southern California may take courses for credit or noncredit, participate in a leadership week in Los Angeles, receive help and information on travel studies, home study, publications and audio-visual material, etc. Due to the nature of the Los Angeles population, classes are taken to various areas of the city instead of bringing students to a central location. The annual leadership week is an exception to this rule, however, when thousands of Church and civic leaders meet in a central location each year.

# Administration and Faculty

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**DEAN OF STUDENTS**

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Librarian, High School Library .....	June Berry
Librarian, Elementary School Library .....	Carma Sandberg
University Archivist .....	Ralph Hansen
Research Division, Director .....	H. Tracy Hall
Summer School, Director .....	Dean A. Peterson

**CHAIRMEN OF DEPARTMENTS OF INSTRUCTION**

Accounting .....	Bryce B. Orton
Agricultural Economics .....	Ivan L. Corbridge
Agronomy .....	Raymond Farnsworth
Air Science .....	Lt. Col. William J. Gibson
Animal Husbandry .....	Lawrence Morris
Archaeology .....	Ross T. Christensen

Art .....	Richard L. Gunn
Bacteriology .....	Richard D. Sagers
Bible and Modern Scripture .....	Howard H. Barron
Biblical Languages .....	Ellis Rasmussen
Botany .....	Bertrand F. Harrison
Business Education and Office Management .....	Richard D. Bell
Business Management .....	Parley M. Pratt
Chemical Engineering Science .....	Dee H. Barker
Chemistry .....	Albert D. Swensen
Civil Engineering Science .....	Cliff S. Barton
Clothing and Textiles .....	Margaret Childs
Dramatic Arts .....	Harold I. Hansen
Economics .....	Willard Doxey
Electrical Engineering Science .....	Darrel J. Monson
English .....	Bruce B. Clark
Food and Nutrition .....	Marian Bennion
Geography .....	Robert L. Layton
Geology and Geological Engineering Science .....	Lehi Hintze
Graduate Department of Education .....	Keith R. Oakes
Health and Safety Education .....	Ray Watters
History .....	Eugene E. Campbell
History and Philosophy of Religion .....	Truman G. Madsen
Homemaking Education .....	Virginia Poulson
Horticulture and Horticultural Specialties .....	Ernest F. Reimschuessel
Housing and Home Management .....	Stephen Stanford
Human Development and Family Relationships .....	Blaine M. Porter
Industrial Education .....	Ross J. McArthur
Institute of Government Service .....	Stewart L. Grow
Intercollegiate Athletics .....	Edwin R. Kimball
Journalism .....	Jean R. Paulson
Languages .....	H. Darrell Taylor
Library Science .....	Hattie M. Knight
Mathematics .....	Harvey J. Fletcher
Mechanical Engineering Science .....	John N. Cannon
Music .....	Crawford Gates
Physical Education for Men .....	David Geddes
Physical Education for Women .....	Leona Holbrook
Physics .....	John Hale Gardner
Political Science .....	Mark W. Cannon
Psychology .....	Robert J. Howell
Recreation .....	Israel C. Heaton
Religious Education .....	Chauncey Riddle
Skills Improvement Service .....	Howard T. Reid
Sociology and Anthropology .....	Joseph N. Symons
Speech .....	Morris M. Clinger
Statistics .....	Howard C. Nielson
Teacher Education .....	Dean C. Christensen
Technical and Semi-Professional Institute .....	Ernest C. Jeppsen
Theology and Church Administration .....	Rodney Turner
Youth Leadership .....	Thane Packer
Zoology and Entomology .....	D Elden Beck

## ADMINISTRATIVE OFFICERS, NON-INSTRUCTIONAL UNITS

Admission and Records .....	Alma P. Burton
Admissions Officer .....	Orrin H. Jackson
Admissions Counselor .....	Dale L. Nelson
Records Officer .....	Lucile Spencer
Registration Officer .....	Donald T. Nelson
Undergraduate Scholarships and Awards, Chairman .....	Dale L. Nelson
Alumni Relations, Director .....	Raymond E. Beckham
Director of Alumni Funds .....	Ronald G. Hyde
Auxiliary Services, Director .....	Ben E. Lewis
Food Services, Director .....	Wells Cloward
Housing, Director .....	Fred A. Schwendiman
Men's Housing, Supervisor .....	Carl D. Jones
Women's Housing, Supervisor .....	Jennie Jones
Photo Studio, Manager .....	Don Pugmire
Motion Picture Production, Director .....	Wetzel O. Whitaker
Purchasing Agent .....	C. R. Peterson
Mail Service, Post Office, Purchasing, Receiving	
University Press, Manager .....	Franklin R. Haymore
"Y" Student Center, Director .....	Lyle S. Curtis
Comptroller .....	Joseph T. Bentley
Accountant, University .....	C. Joseph Rowberry
Auditors .....	J. Alan Blodgett, Lyman J. Durfee
Data Processing Office, Director .....	David W. Batchelor
Financial Aids and Loans—Student and Staff .....	O. Wendle Nielsen
Placement Center, Director .....	B. Keith Duffin
Students Supply, Manager .....	Ivan L. Sanderson
Ticket Bureau, Director .....	Floyd R. Taylor
Treasurer, University .....	Kiefer B. Sauls
Physical Plant, Director .....	Sam F. Brewster
Construction Division, Construction Engineer .....	Paul G. Rasmussen
Maintenance and Operations Division,	
Assistant to the Director .....	Harold J. Anderson
Planning Division, Chief .....	Ephraim Hatch
Security Officer .....	Swen Nielsen
University Relations, Director .....	Lester B. Whetten
Booking University Attractions, Chairman .....	James H. Lawrence
Civic and Church Organization Relations, Chairman .....	Lester B. Whetten
Conferences and Conventions, Chairman .....	C. LaVar Rockwood
Devotional Assemblies, Chairman .....	Herald R. Clark
Press Relations .....	Edwin J. Butterworth
Program Coordinator .....	Jane Thompson
Radio and Television Programs, Chairman .....	Tess M. Williams
Servicemen's Letter Committee, Chairman .....	T. Earl Pardoe
University and Professional Relations, Chairman .....	Lester B. Whetten
University Mailing Center, Chairman .....	Gary R. Bascom
University Program Bureau, Chairman .....	James H. Lawrence
University Publications, Chairman .....	Ernest LeRoy Olson
University Speakers Bureau, Chairman .....	J. LaVar Bateman

Students, Dean .....	J. Elliot Cameron
Academic Standards, Chairman .....	Darrel L. Moses
Counseling Service, Chairman .....	Clyde A. Parker
Counselor for Women .....	Klea Worsley
Foreign Students, Adviser .....	Ariel S. Ballif
Indian Students, Adviser .....	Robert F. Gwilliam
Special Student Problems, Adviser .....	Alma W. King
Student Health Services, Director .....	Richard A. Nimer
Student Organizations, Coordinator .....	Paul E. Felt
University Standards, Chairman .....	Kenneth Lauritzen
Veterans' Office .....	Vern Cupfer

## Councils

### ADMINISTRATIVE COUNCIL

On matters of over-all policy the following meet as an administrative council for the purpose of advising the President and resolving mutual problems: Ernest L. Wilkinson, President; John T. Bernhard, Administrative Assistant; William E. Berrett, Earl C. Crockett, and Harvey L. Taylor, Vice-Presidents; Clyde D. Sandgren, Vice-President and General Counsel; Joseph T. Bentley, Comptroller; Ben E. Lewis, Vice-President in Charge of Auxiliary Services; Dale Tingey and Alma P. Burton, Assistant Administrators of Institutes and Seminaries.

### DEANS' COUNCIL

The Deans' Council consists of the administrative council, all deans, and the directors of schools and divisions.

### GRADUATE COUNCIL

The chief administrative body of the graduate faculty is the Graduate Council, which consists of (1) the academic vice-president of the University, and the director of libraries, ex officio; (2) the dean of the Graduate School, chairman; (3) four members of the graduate faculty elected at large for terms of three year; and (4) nine members of the graduate faculty, one elected from each of the nine colleges in which there are departments offering graduate work.

### EXTENSION SERVICES COUNCIL

The Extension Services Council is an advisory body for the Adult Education and Extension Services.

## Faculty

### Emeriti

Clarence S. Boyle .....	Professor Emeritus of Marketing B.S., Brigham Young University, 1924; M.S., Ed.D., New York University, 1926, 1941.
William H. Boyle .....	Professor Emeritus of Education B.A., M.A., Brigham Young University, 1913, 1923.
Ella Larsen Brown .....	Librarian Emeritus
Gustave O. Buggert .....	Assistant Professor Emeritus of Music
Clawson Y. Cannon, Sr. ....	Professor Emeritus of Animal Husbandry (1956) B.S., Utah State University, 1913; M.S., Ph.D., Iowa State College, 1924, 1927.

- Elsie C. Carroll** ..... Associate Professor Emeritus of English  
B.S., M.A., Brigham Young University, 1926, 1928.
- Parley A. Christensen** ..... Professor Emeritus of English (1927)  
B.S., Utah State University, 1914; M.A., Ph.D., Stanford University, 1925, 1927.
- Benjamin F. Cummings** ..... Professor Emeritus of Modern and  
Classical Languages  
B.A., University of Utah, 1913.
- J. Orval Ellsworth** ..... Professor Emeritus of Religion  
B.S., Utah State University, 1917; M.S., Ph.D., Cornell University, 1924, 1926.
- Flora D. Fisher** ..... Assistant Professor Emeritus of Education  
B.S., M.S., Brigham Young University, 1936, 1949.
- Alvah Fitzgerald** ..... Instructor Emeritus in Religious Education (1956)  
B.S., M.S., Brigham Young University, 1928, 1930.
- Harvey Fletcher** ..... Professor Emeritus of Physics; Dean Emeritus  
of College of Physical and Engineering Sciences (1952)  
B.S., Brigham Young University, 1907; Ph.D., Chicago University, 1911; hon. Sc. D.,  
Columbia University, 1935; hon. Sc.D., Kenyon College, 1942; hon. Sc.D., Stevens  
Institute of Technology, 1942; hon. Sc.D., Case School of Applied Sciences, 1942;  
hon. Sc.D., University of Utah, 1944; hon. Sc.D., Brigham Young University, 1954.
- May C. Hammond** ..... Assistant Professor Emeritus of Education  
B.S., M.S., Brigham Young University, 1934, 1949.
- William F. Hansen** ..... Assistant Professor Emeritus of Music  
B.S., M.S., Brigham Young University, 1936, 1937.
- John E. Hayes** ..... Registrar Emeritus  
B.S., Brigham Young University, 1924.
- Bent F. Larsen** ..... Professor Emeritus of Art  
B.A., Brigham Young University, 1912; M.A., University of Utah, 1922.
- Florence Jepperson Madsen** ..... Professor Emeritus of Music  
B.M., M.M., Chicago Musical College, 1926, 1927; Doctor of Music, Boguslawski Col-  
lege of Music, 1932; B.A., Brigham Young University, 1934; M.M., hon. Doctor of  
Music, Chicago College of Music, 1933.
- Franklin Madsen** ..... Professor Emeritus of Music  
B.A., M.A., Brigham Young University, 1925, 1931; B.M., 1926; M.M., 1927; B.M.E.,  
1928; Mus. Doc., 1929; M.M.E., 1932; hon. Doctor of Music Education, Boguslawski  
College of Music, 1933; hon. Doctor of Music Education, Chicago College of Music,  
1934.
- Georgia Maeser** ..... Assistant Professor Emeritus of Education  
B.S., Brigham Young University, 1928; M.A., Columbia University, 1938.
- Joseph K. Nicholes** ..... Professor Emeritus of Chemistry (1933)  
B.A., Brigham Young University, 1916; M.A., Stanford University, 1924.
- T. Earl Pardoe** ..... Professor Emeritus of Speech  
B.A., Brigham Young University, 1925; M.A., University of Southern California,  
1931; Ph.D., Louisiana State University, 1936.
- Hermese Peterson** ..... Professor Emeritus of Education  
B.S., Brigham Young University, 1928.
- M. Wilford Poulson** ..... Professor Emeritus of Psychology  
B.A., Brigham Young University, 1914; M.A., University of Utah, 1919.
- J. Wyley Sessions** ..... Professor Emeritus of Religious Philosophy  
B.S., Utah State University, 1911; M.A., University of Idaho, 1928.
- William H. Snell** ..... Professor Emeritus of Industrial Arts  
B.A., M.S., Brigham Young University, 1918, 1939.
- Margaret Summerhays** ..... Assistant Professor Emeritus of Music  
Graduate, New England Conservatory of Music, 1916; B.A., Brigham Young Univer-  
sity, 1936.
- Effie Warnick** ..... Professor Emeritus of Home Economics  
B.S., Utah State University, 1914; M.S., Iowa State College, 1937.

## Members of the Instructional and Administrative Staff

- Margaret Adamson** ..... Instructor in Nursing (1961)  
B.S., University of Utah, 1960; M.N., New York University, 1961.
- George M. Addy** ..... Assistant Professor of History (1957)  
B.A., M.A., Brigham Young University, 1948, 1950; Ph.D., Duke University, 1957.
- Lorna Call Alder** ..... Assistant Professor of Education (1949)  
B.S., Brigham Young University, 1935; M.A., Columbia University, 1940.
- Zane G. Alder** ..... Instructor in English (1955)  
B.S., M.S., Utah State University, 1948, 1956.
- A. Lester Allen** ..... Associate Professor of Zoology (1954)  
B.A., Ph.D., University of California at Los Angeles, 1946, 1951.
- Beulah Ream Allen** ..... Professor of Nursing and Dean of the  
College of Nursing (1961)  
Diploma, Illinois Training School for Nurses, Cook County Hospital, Chicago, Illinois,  
1922; B.A., University of Utah, 1928; M.D., University of California, 1932.
- Dell K. Allen** ..... Special Instructor in Industrial Education (1960)  
B.S., Utah State University, 1954.
- Mark K. Allen** ..... Professor of Psychology (1946)  
B.A., Brigham Young University, 1926; M.A., Stanford University, 1935; Ph.D., Stan-  
ford University, 1955.
- \*Stephen L. Alley** ..... Associate Professor of Educational Philosophy (1956)  
B.S., M.S., University of Utah, 1947, 1951; Ed.D., Harvard University, 1958.
- Grace H. Allphin** ..... Instructor in Library Science (1956)  
A.B., University of Utah, 1931; Certificate in Library Science, Brigham Young  
University, 1956.
- Dorald M. Allred** ..... Assistant Professor of Zoology and Entomology (1956)  
B.A., M.A., Brigham Young University, 1950, 1951; Ph.D., University of Utah, 1954.
- Mildred E. Allred** ..... Assistant Professor of Nursing (1954)  
Diploma, Latter-day Saints Hospital, Salt Lake City, 1925; C.P.H.N., Oregon, 1941;  
B.S., Brigham Young University, 1943; M.N., University of Washington, 1960.
- R. Chase Allred** ..... Associate Professor of Agronomy (1955)  
B.S., Brigham Young University, 1948; M.S., Kansas State College, 1949; Ph.D.,  
University of Nebraska, 1952.
- Captain Ray W. Alvord** ..... Assistant Professor of Air Science (1958)  
B.S., Utah State University, 1950; M.Ed., Stanford University, 1955.
- Mignon H. Alward** ..... Instructor in Nursing (1953)  
Diploma, Latter-day Saints Hospital, Salt Lake City, 1945; B.S., University of Utah,  
1946.
- H. Verlan Andersen** ..... Professor of Accounting (1953)  
B.S., Brigham Young University, 1940; LL.B., Stanford University, 1946; LL.M., Har-  
vard University, 1948; C.P.A., State of Arizona, 1943.
- C. Dixon Anderson** ..... Assistant Professor of Modern Languages (1956)  
B.A., Brigham Young University, 1953; M.A., University of Texas, 1956.
- Keith P. Anderson** ..... Professor of Chemistry (1953)  
B.A., Brigham Young University, 1946; Ph.D., Cornell University, 1950.
- Sharel Anderson** ..... Instructor in Physical Education for Women (1961)  
B.S., M.S., Utah State University, 1958, 1960.
- Richard L. Anderson** ..... Associate Professor of History and Religion (1955)  
B.A., M.A., Brigham Young University, 1951, 1957; LL.B., Harvard University, 1954.
- Vernon L. Anderson** ..... Associate Professor of Modern Languages (1956)  
B.A., M.A., University of Utah, 1948, 1949; Ph.D., Stanford University, 1954.
- Hyrum L. Andrus** ..... Associate Professor of Religion (1956)  
B.S., Ricks College, 1951; M.S., Brigham Young University, 1952; D.S.S., Syracuse  
University, 1955.

- J. Roman Andrus** ..... Professor of Art and Education (1943)  
B.S., M.S., Brigham Young University, 1942, 1943; Ed.D., University of Colorado, 1958; Art Students League, L.A. Art Institute.
- Chris J. Apostol** ..... Instructor in Physical Education (1959)  
B.S., Utah State University, 1950.
- Nadine T. Ashby** ..... Instructor in Business Education and Office Management (1960)  
B.A., Brigham Young University, 1936; M.A., Colorado State College, 1959.
- Clarence D. Ashton** ..... Associate Professor of Horticulture and Horticultural Specialties (1951)  
B.S., Brigham Young University, 1929.
- Hyrum J. Babcock** ..... Associate Professor of Education (1954)  
B.A., M.A., Ph.D., University of California, 1939, 1940, 1953.
- Milton V. Backman, Jr.** ..... Assistant Professor of History and Philosophy of Religion (1960)  
B.S., M.A., University of Utah, 1954, 1955; Ph.D., University of Pennsylvania, 1959.
- \*Dale S. Bailey** ..... Assistant Professor of English (1955)  
B.A., Brigham Young University, 1952; M.A., Columbia University, 1954.
- Rey L. Baird** ..... Special Instructor in Languages (1961)  
B.A., University of Utah, 1960.
- Ariel S. Ballif** ..... Professor of Sociology (1938)  
B.S., Brigham Young University, 1925; M.A., Ph.D., University of Southern California, 1937, 1945.
- Jae R. Ballif** ..... Assistant Professor of Physics (1962)  
B.S., Brigham Young University, 1953; Ph.D., University of California at Los Angeles, 1962.
- Richard Ballou** ..... Assistant Professor of Music (1951)  
B.A., M.A., Brigham Young University, 1948, 1953.
- Blauer L. Bangert** ..... Assistant Professor of Physical Education (1953)  
B.A., Brigham Young University, 1951; M.S., University of Utah, 1955.
- Reid E. Bankhead** ..... Assistant Professor of Religion (1949)  
B.S., University of Utah, 1947; M.Th., Brigham Young University, 1949.
- Dee H. Barker** ..... Associate Professor of Chemical Engineering (1959)  
B.S., Ph.D., University of Utah, 1948, 1951.
- Frances P. Barlow** ..... Instructor in Human Development and Family Relationships (1954)  
B.S., University of Utah, 1933; M.Ed., Utah State University, 1938.
- Minnie Barlow** ..... Special Instructor in Weaving and Home Furnishings (1956)  
B.S., University of Utah, 1920; M.A., Columbia University, 1936.
- J. Dean Barnett** ..... Assistant Professor of Physics (1958)  
B.A., University of Utah, 1954; Ph.D., University of Utah, 1959.
- Owen L. Barnett** ..... Associate Professor of Educational Administration (1950)  
B.S., M.S., Brigham Young University, 1923, 1927.
- Vesta Barnett** ..... Instructor in Housing and Home Management (1956)  
B.S., M.Ed., Brigham Young University, 1932, 1954.
- Ralph Dale Barney** ..... Instructor in Journalism (1961)  
B.S., Brigham Young University, 1957; M.A., Iowa State University, 1960.
- Vernon S. Barney** ..... Assistant Professor of Health and Physical Education (1953)  
B.S., Utah State University, 1948; M.S., Brigham Young University, 1956; Diploma in Physical Therapy, Children's Hospital Society School of Physical Therapy, Los Angeles, California, 1952.
- Ivan J. Barrett** ..... Assistant Professor of Religion (1953)  
B.S., Utah State University, 1938; M.S., Brigham Young University, 1947.

- Howard H. Barron** ..... Associate Professor of Religion (1953)  
B.S., M.S., Utah State University, 1943, 1950; Ed.D., University of Utah, 1953.
- Davis Bartholomew** ..... Professor of Electrical Engineering (1954)  
B.S., University of Utah, 1928; M.S., University of Minnesota, 1940; P.E.E., University of Utah, 1948.
- Cliff S. Barton** ..... Associate Professor of Civil Engineering (1959)  
B.S., Utah State University, 1947; M.S., Ph.D., Rensselaer Polytechnic Institute, 1953, 1959.
- J. LaVar Bateman** ..... Professor of Speech (1949)  
B.A., Brigham Young University, 1941; M.S., Ph.D., University of Wisconsin, 1947, 1950.
- Edith Bartholomew Bauer** ..... Associate Professor of Education (1945)  
B.A., M.A., Brigham Young University, 1930, 1946; Ph.D., University of California (Berkeley), 1956.
- Leland K. Baxter** ..... Professor of Mechanical Engineering (1953)  
B.S., University of New Mexico, 1948; M.S., Ph.D., Purdue University, 1952, 1953.
- D Elden Beck** ..... Professor of Zoology and Entomology (1938)  
B.A., M.A., Brigham Young University, 1929, 1930; Ph.D., Iowa State College, 1933.
- Jay V. Beck** ..... Professor of Bacteriology (1951)  
B.A., M.A., Brigham Young University, 1933, 1936; Ph.D., University of California (Berkeley), 1940.
- \*Wayne B. Beebe** ..... Assistant Professor of Mechanical Engineering (1958)  
B.S., M.S., California Institute of Technology, 1951, 1952.
- R. DerMont Bell** ..... Assistant Professor of Business Education  
and Office Management (1957)  
B.S., M.S., Brigham Young University, 1955, 1956; Ph.D., University of Southern California, 1960.
- B. West Belnap** ..... Professor of Religious Education (1951)  
B.S., Brigham Young University, 1946; M.A., Ed.D., Columbia University, 1950, 1951.
- W. Dwayne Belt** ..... Assistant Professor of Education (1961)  
B.A., Brigham Young University, 1952; M.A., Ed.D., Colorado State College, 1958, 1961.
- Erma Bennett** ..... Instructor in Education (1956)  
B.S., M.S., Brigham Young University, 1936, 1959.
- George C. Bennion** ..... Special Instructor in English (1961)  
B.A., Brigham Young University, 1949.
- Marian Bennion** ..... Associate Professor of Food and Nutrition (1952)  
B.S., Utah State University, 1947; M.S., Teachers College, Columbia University, 1949; Ph.D., University of Wisconsin, 1956.
- Robert C. Bennion** ..... Assistant Professor of Psychology (1961)  
B.A., Brigham Young University, 1956; M.A., Ph.D., Ohio State University, 1959, 1961.
- Anthony I. Bentley** ..... Assistant Professor of Religion (1954)  
B.A., Brigham Young University, 1930; M.A., University of Southern California, 1940.
- Joseph T. Bentley** ..... Comptroller; Associate Professor of Accounting  
B.S., M.S., Brigham Young University, 1928, 1954; C.P.A., State of Utah, 1946.
- John T. Bernhard** ..... Administrative Assistant to the President; Professor of  
Political Science (1959)  
B.S., Utah State University, 1941; M.A., Ph.D., University of California at Los Angeles, 1949, 1951.
- William E. Berrett** ..... Vice-President; Professor of Religion  
B.A., LL.B., University of Utah, 1924, 1933.
- Brian S. Best** ..... Special Instructor in English (1960)  
B.S., Brigham Young University, 1958.
- Constance Bethers** ..... Instructor in Nursing (1958)  
B.S., University of Utah, 1954, M.N., Loma Linda University, 1961.

- Seth H. Bills** ..... Instructor in Education (1956)  
B.S., Utah State University, 1946; M.S., Brigham Young University, 1949.
- Harold J. Bissell** ..... Professor of Geology (1938)  
B.S., Brigham Young University, 1934; M.S., Ph.D., University of Iowa, 1936, 1948.
- Angus U. Blackham** ..... Professor of Chemistry (1952)  
B.A., Brigham Young University, 1949; M.A., Ph.D., University of Cincinnati, 1950, 1952.
- Robert W. Blair** ..... Instructor in English (1959)  
B.A., M.A., Brigham Young University, 1955, 1957.
- Mable Blanch** ..... Special Instructor in English (1958)  
B.A., Brigham Young University, 1950.
- T/Sgt. Paul V. Boman** ..... Instructor in Air Science (1958)
- Robert S. Boren** ..... Instructor in Speech (1961)  
B.A., M.A., Brigham Young University, 1958, 1960.
- Reed H. Bradford** ..... Professor of Sociology (1946)  
B.A., Brigham Young University, 1937; M.A., Louisiana State University, 1939; M.A. Ph.D., Harvard University, 1941, 1946.
- Merrill K. Bradshaw** ..... Instructor in Music (1957)  
B.A., M.A., Brigham Young University, 1954, 1955; M.Mus., University of Illinois, 1956.
- Willard H. Bradshaw** ..... Assistant Professor of Bacteriology (1961)  
B.S., M.S., Brigham Young University, 1952, 1953; Ph.D., University of California, 1957.
- Marion B. Brady** ..... Assistant Professor of English (1957)  
B.A., M.A., Brigham Young University, 1950, 1951.
- Floyd E. Breinholt** ..... Assistant Professor of Art (1961)  
B.S., M.E., Brigham Young University, 1937, 1953.
- Luella Edna Briick** ..... Instructor in Nursing (1960)  
B.S., University of California, 1959; M.A., University of Washington, 1960.
- Willis H. Brimhall** ..... Assistant Professor of Geology (1956)  
B.S., Brigham Young University, 1949; M.S., University of Arizona, 1951; B.E.S., Brigham Young University, 1960.
- Ralph A. Britsch** ..... Associate Professor of English (1938)  
B.A., M.A., Brigham Young University, 1933, 1951.
- H. Smith Broadbent** ..... Professor of Chemistry (1946)  
B.S., Brigham Young University, 1942; Ph.D., Iowa State College, 1946.
- Jack Vernal Brown** ..... Special Instructor in Languages (1958)  
B.A., Brigham Young University, 1957.
- Thomas H. Brown** ..... Assistant Professor of Languages (1959)  
B.A., Brigham Young University, 1955; M.A., Ph.D., University of Illinois, 1957, 1960.
- Loren C. Bryner** ..... Professor of Chemistry (1935)  
B.S., M.S., Brigham Young University, 1928, 1930; Ph.D., Iowa State College, 1934.
- Maurine F. Bryner** ..... Special Instructor in Food and Nutrition (1957)  
B.S., Brigham Young University, 1928.
- Harold S. Budge** ..... Instructor in Psychology (1960)  
B.S., M.S., Utah State University, 1958, 1960.
- Kenneth C. Bullock** ..... Professor of Geology (1943)  
B.S., M.A., Brigham Young University, 1940, 1942; Ph.D., University of Wisconsin, 1949.
- Robert E. Bunker** ..... Instructor in Physical Education;  
Assistant Basketball Coach (1949)  
B.S., Utah State University, 1937.
- M. Dallas Burnett** ..... Assistant Professor of Journalism (1958)  
B.S., Brigham Young University, 1954; M.S.J., Northwestern University, 1958.

- Wesley Burnside** ..... Instructor in Art (1958)  
B.S., M.S., Brigham Young University, 1941, 1949.
- Wesley R. Burr** ..... Instructor in Human Development and Family Relationships (1961)  
B.S., M.S., Brigham Young University, 1960, 1961.
- Percy E. Burrup** ..... Professor of Educational Administration (1952)  
B.S., M.S., Utah State University, 1932, 1941; Ed.D., Colorado State College of Education, 1951.
- Alma P. Burton** ..... Assistant Administrator of Seminaries and Institutes; Professor of Religion (1948)  
B.S., Utah State University, 1948; M.S., Brigham Young University, 1950; Ed.D., University of Utah, 1957.
- A/1C Wilford W. Burton** ..... Instructor in Air Science (1960)
- Jess R. Bushman** ..... Assistant Professor of Geology (1955)  
B.A., Brigham Young University, 1949; Ph.D., Princeton University, 1959.
- Richard L. Bushman** ..... Assistant Professor of History (1960)  
B.A., Ph.D., Harvard University, 1955, 1961.
- Eliot A. Butler** ..... Associate Professor of Chemistry (1956)  
B.S., Ph.D., California Institute of Technology, 1952, 1956.
- Newbern I. Butt** ..... Assistant Professor of Library and Research (1922)  
B.S., Utah State University, 1915; M.S., Brigham Young University, 1939.
- Edwin J. Butterworth** ..... Assistant Professor of Journalism (1949)  
B.A., University of Utah, 1950; M.A., Brigham Young University, 1954.
- Glen H. Calder** ..... Assistant Professor of Civil Engineering (1955)  
B.S., M.S., Utah State University, 1952, 1953.
- C. Boyd Call** ..... Instructor in Physical Education (1960)  
B.S., University of Utah, 1950; Physical Therapy Certificate from Children's Hospital in Los Angeles, 1953.
- Sterling G. Callahan** ..... Professor of Education (1953)  
B.A., Brigham Young University, 1937; M.A., George Washington University, 1947; Ed.D., University of Virginia, 1953.
- J. Elliot Cameron** ..... Professor of Education (1962)  
B.S., M.S., Brigham Young University, 1949.
- Eugene E. Campbell** ..... Professor of History (1956)  
B.A., M.A., University of Utah, 1939, 1940; Ph.D., University of Southern California, 1952.
- Jennie Campbell** ..... Associate Professor of Education (1952)  
B.S., Brigham Young University, 1928; M.A., Teachers College, Columbia University, 1937.
- John O. Canfield** ..... Assistant Professor of Air Science (1961)  
B.S., Utah State University, 1950.
- Clawson Y. Cannon, Jr.** ..... Assistant Professor of Music (1949)  
B.M., Eastman School of Music, University of Rochester, 1948; Diploma, Konservatorium Zurich, 1953; B.A., M.A., Brigham Young University, 1954, 1955.
- John N. Cannon** ..... Assistant Professor of Mechanical Engineering (1957)  
B.S.M.E., M.S., University of Utah, 1952, 1955.
- Kenneth L. Cannon** ..... Professor of Human Development and Family Relationships (1956)  
B.S., Brigham Young University, 1935; M.S., Ph.D., Iowa State College, 1948, 1954.
- Mark W. Cannon** ..... Associate Professor of Political Science (1961)  
B.A., University of Utah, 1949; M.P.A., M.A., Ph.D., Harvard University, 1953, 1954, 1961.
- Louis B. Cardon** ..... Instructor in History (1960)  
B.A., University of Arizona, 1950; M.A., University of California at Berkeley, 1957.
- Melvin W. Carter** ..... Associate Professor of Statistics (1961)  
B.S., Arizona State University, 1952; M.S., Ph.D., North Carolina State, 1954, 1956.

- Arthur O. Chapman** ..... Associate Professor of Zoology (1959)  
B.A., Brigham Young University, 1941; M.A., University of Kansas, 1949; Ph.D., University of Nebraska, 1953.
- A. Norton Chaston** ..... Instructor in Electrical Engineering (1957)  
B.S., University of Utah, 1951.
- Diane R. Chatwin** ..... Instructor in Physical Education (women) (1958)  
B.A., University of Utah, 1956; M.S., University of Wisconsin, 1957.
- Thomas E. Cheney** ..... Associate Professor of English (1945)  
B.S., Utah State University, 1930; M.A., University of Idaho, 1936.
- Margaret Potter Childs** ..... Assistant Professor of Clothing and Textiles (1946)  
B.S., Brigham Young University, 1939; M.S., Oregon State College, 1949.
- Dean C. Christensen** ..... Professor of Education (1957)  
B.S., M.S., Utah State University, 1938, 1948; Ed.D., University of Oregon, 1957.
- Earl M. Christensen** ..... Associate Professor of Botany (1949)  
B.S., M.S., University of Utah, 1947, 1949; Ph.D., University of Wisconsin, 1954.
- Edward L. Christensen** ..... Professor of Business Education  
and Office Management (1953)  
B.S., M.S., Ph.D., University of Utah, 1938, 1939, 1953.
- James J. Christensen** ..... Associate Professor of Chemical Engineering (1957)  
B.S., M.S., University of Utah, 1953, 1956; Ph.D., Carnegie Institute of Technology, 1957.
- Lillian Christensen** ..... Associate Professor of Education (1950)  
B.S., University of Utah, 1938; M.S., Brigham Young University, 1957; Ph.D., Western Reserve University, 1958.
- Ross T. Christensen** ..... Associate Professor of Archaeology (1952)  
B.A., M.A., Brigham Young University, 1943, 1947; Ph.D., University of Arizona, 1956.
- John R. Christiansen** ..... Associate Professor of Sociology (1957)  
B.S., M.S., Utah State University, 1949, 1952; Ph.D., University of Wisconsin, 1955.
- Bruce B. Clark** ..... Professor of English (1950)  
B.A., University of Utah, 1943; M.A., Brigham Young University, 1948; Ph.D., University of Utah, 1951.
- David Leigh Clark** ..... Associate Professor of Geology (1959)  
B.S., M.S., Brigham Young University, 1953, 1954; Ph.D., University of Iowa, 1957.
- Harold Glen Clark** ..... Professor of Education; Dean of Adult  
Education and Extension Services (1946)  
B.S., Brigham Young University, 1928; M.S., University of Southern California, 1934; Ed.D., George Washington University, 1942.
- Herald R. Clark** ..... Professor of Finance and Banking (1913)  
B.A., Brigham Young University, 1918; M.B.A., University of Washington, 1924.
- J. Reuben Clark, III** ..... Associate Professor of Modern Languages (1941)  
B.A., University of Utah, 1934.
- James R. Clark** ..... Associate Professor of Religious Instruction (1938)  
B.A., M.A., Brigham Young University, 1936, 1944; Ed.D., Utah State University, 1958.
- Marden J. Clark** ..... Associate Professor of English (1949)  
B.A., M.A., Brigham Young University, 1948, 1949; Ph.D., University of Washington, 1957.
- Monroe H. Clark** ..... Associate Professor of Philosophy of  
Education and Guidance (1945)  
B.A., Columbia University, 1923; M.A., Brigham Young University, 1927.
- A. John Clarke** ..... Professor of Educational Administration (1938)  
B.S., M.S., Brigham Young University, 1938, 1942; Ed.D., Colorado University, 1950.
- John C. Clegg** ..... Assistant Professor of Electrical Engineering (1961)  
B.S., M.S., Ph.D., University of Utah, 1949, 1954, 1957.

- Morris M. Clinger** ..... Assistant Professor of Speech (1936)  
B.A., M.A., Brigham Young University, 1932, 1946.
- Coran L. Cluff** ..... Assistant Professor of Chemistry (1960)  
B.S., Arizona State University, 1952; M.S., University of Michigan, 1955.
- Lane A. Compton** ..... Associate Professor of Physical Science  
Education (1953)  
B.S., M.S., Ed.D., University of Utah, 1943, 1951, 1955.
- D'Monte W. Coombs** ..... Instructor in Civil Engineering (1959)  
B.S., Utah State University, 1941.
- Leslie M. Cooper** ..... Assistant Professor of Psychology (1962)  
B.S., M.S., Brigham Young University, 1954, 1958; Ph.D. University of Illinois, 1962.
- Ivan L. Corbridge** ..... Associate Professor of Economics (1952)  
B.A., Utah State University, 1946; M.S., University of Chicago, 1948; Ph.D., Wash-  
ington State College, 1952.
- \*Stephen R. Covey** ..... Assistant Professor of Business Management (1957)  
B.S., University of Utah, 1953; M.B.A., Harvard Graduate School of Business Ad-  
ministration, 1957.
- Richard O. Cowan** ..... Assistant Professor of Religious Instruction (1961)  
B.A., Occidental College, 1958; M.A., Ph.D., Stanford University, 1959, 1961.
- Soren F. Cox** ..... Instructor in English (1955)  
B.A., M.A., Brigham Young University, 1952, 1956.
- Marshall R. Craig** ..... Assistant Professor of English (1953)  
B.S., Brigham Young University, 1941; M.A., Columbia University, 1947.
- Lars G. Crandall** ..... Associate Professor of Business Education  
and Office Management (1944)  
B.S., M.S., Brigham Young University, 1944, 1945; Ph.D., Colorado State College,  
1960.
- John K. Crnkovic** ..... Assistant Director of the Laboratory Schools for  
Curriculum and Teaching; Associate Professor of Education (1956)  
B.A., Willamette University, 1930; M.A., University of Michigan, 1940; Ed.D., Arizona  
State University, 1956.
- Earl C. Crockett** ..... Vice-President; Professor of Economics  
B.S., University of Utah, 1927; Ph.D., University of California, 1931.
- Evan M. Croft** ..... Associate Professor of Business Education  
and Office Management (1936)  
B.S., Brigham Young University, 1929; M.S., University of Southern California, 1940.
- Robert M. Cundick** ..... Assistant Professor of Music (1957)  
B.F.A., M.F.A., Ph.D., University of Utah, 1949, 1950, 1955.
- Brandt B. Curtis** ..... Instructor in Music (1955)  
B.A., Brigham Young University, 1953; M.Mus., Indiana University, 1955.
- Virginia F. Cutler** ..... Professor of Housing and Home Management;  
Dean of the College of Family Living (1961)  
B.S., University of Utah, 1926; M.A., Stanford University, 1937; Ph.D., Cornell  
University, 1946.
- Delva Daines** ..... Associate Professor of Education (1955)  
B.S., M.S., Utah State University, 1940, 1947; Ed.D., State College of Washington,  
1956.
- Philip B. Daniels** ..... Assistant Professor of Psychology (1961)  
B.S., M.S., Brigham Young University, 1954, 1957; Ph.D., Harvard University, 1962.
- Alexander B. Darais** ..... Assistant Professor of Art (1954)  
B.S., Brigham Young University, 1948; M.F.A., Claremont Graduate School, 1952.
- Richard B. Davidson** ..... Instructor in Mathematics (1960)  
B.S., M.S., Brigham Young University, 1955, 1960.
- J. Kenneth Davies** ..... Associate Professor of Economics (1953)  
B.S., Marquette University, 1948; M.S., Brigham Young University, 1950; Ph.D., Uni-  
versity of Southern California, 1959.

- Edwin Dean** ..... Associate Professor of Mathematics (1949)  
B.S., M.S., Brigham Young University, 1947, 1952; M.S., University of Michigan, 1955.
- Daniel Decker** ..... Assistant Professor of Physics (1958)  
B.S., M.S., Brigham Young University, 1953, 1955; Ph.D., University of Illinois, 1958.
- Harry C. Dees** ..... Instructor in Library Science (1959)  
B.A., Brigham Young University, 1949; M.A., University of California, 1950.
- Benjamin F. DeHoyos** ..... Instructor in Recreation (1961)  
B.S., M.A., Brigham Young University, 1956, 1961.
- Gerrit de Jong, Jr.** ..... Professor of Modern Languages; Dean Emeritus,  
College of Fine Arts (1925)  
B.A., M.A., University of Utah, 1920, 1925; Ph.D., Stanford University, 1933.
- Stanford D. DeMille** ..... Instructor in Business Education and  
Office Management (1957)  
B.S., M.S., Brigham Young University, 1950, 1960.
- Dwight R. Dixon** ..... Associate Professor of Physics (1959)  
B.S., Utah State University, 1942; Ph.D., University of California, 1955.
- Fred W. Dixon** ..... Assistant Professor of Physical Education;  
Tennis and Golf Coach (1928)  
B.S., M.S., Brigham Young University, 1926, 1939.
- Gerald M. Doman** ..... Instructor in Physical Education for Men (1961)  
B.A., Oregon State University, 1960.
- Mignon Domgaard** ..... Instructor in Clothing and Textiles (1954)  
B.S., Utah State University, 1943; M. of H.E., Oregon State College, 1954.
- David M. Donaldson** ..... Associate Professor of Bacteriology (1955)  
B.S., M.S., Ph.D., University of Utah, 1950, 1952, 1954.
- Arthur A. Done** ..... Assistant Professor of Business Management (1961)  
B.S., M.B.A., University of Utah, 1955, 1956.
- G. Byron Done** ..... Professor of Religion (1956)  
B.A., University of Utah, 1928; M.A., Ph.D., University of Southern California, 1937, 1939.
- Lester N. Downing** ..... Professor of Personnel and Guidance (1954)  
B.S., M.S., Utah State University, 1947, 1949; Ed.D., Colorado State College of Education, 1951.
- Roy W. Doxey** ..... Assistant Professor of Religion (1948)  
B.A., M.A., George Washington University, 1938, 1940.
- Willard B. Doxey** ..... Assistant Professor of Economics (1956)  
B.S., M.S., University of Utah, 1937, 1947; Ph.D., University of California (Berkeley), 1956.
- Marian A. Drury** ..... Instructor in Nursing (1960)  
Diploma, Hamilton General Hospital, Ontario, Canada, 1956; B.S., University of Utah, 1960.
- J. Duane Dudley** ..... Assistant Professor of Physics (1956)  
B.S., Brigham Young University, 1952; M.A., Rice Institute, 1953; Ph.D., University of Utah, 1959.
- \*Claude B. Duerden** ..... Assistant Professor of Health Education (1958)  
B.S., University of Utah, 1950; M.P.H., University of California (Berkeley), 1954.
- Noel H. Duerden** ..... Special Instructor in Journalism (1959)  
B.S., Northwestern University, 1958.
- Keith E. Duke** ..... Assistant Professor of Geography (1956)  
B.A., University of California at Los Angeles, 1947; Docteur de l'Univ., Université de Bordeaux, France, 1950.

- Norma Alice R. Durfey** ..... Instructor in Nursing (1960)  
B.S., University of Utah, 1951.
- Captain Gerald J. Dye** ..... Assistant Professor of Air Science (1957)  
B.S., Utah State University, 1949; M.Ed., Miami University, Oxford, Ohio, 1954.
- William G. Dyer** ..... Associate Professor of Sociology (1955)  
B.A., M.A., Brigham Young University, 1950, 1952; Ph.D., University of Wisconsin, 1955.
- \*L. Brent Eagar** ..... Instructor in Economics (1959)  
B.S.E.E., University of Utah, 1957; M.B.A., University of Michigan, 1959.
- Don L. Earl** ..... Professor of Music (1946)  
B.A., M.A., Brigham Young University, 1940, 1947; Ph.D., Indiana University, 1952.
- E. John Eastmond** ..... Professor of Physics (1951)  
B.A., Brigham Young University, 1937; Ph.D., University of California (Berkeley), 1943.
- \*Robert L. Egbert** ..... Professor of Educational Psychology (1955)  
B.S., M.S., Utah State University, 1947, 1948; Ph.D., Cornell University, 1949.
- Richard Grant Ellsworth** ..... Assistant Professor of English (1958)  
B.A., M.A., Brigham Young University, 1951, 1952; Ph.D., University of Maryland, 1958.
- \*LaMar T. Empey** ..... Associate Professor of Sociology (1955)  
B.S., M.S., Brigham Young University, 1951, 1952; Ph.D., Washington State University, 1955.
- David L. Evans** ..... Assistant Professor of English (1954)  
B.A., Idaho State College, 1948; M.A., University of Utah, 1953.
- Dean B. Farnsworth** ..... Professor of English (1953)  
B.A., M.A., University of Utah, 1946, 1947; Ph.D., University of California (Berkeley), 1950.
- Raymond B. Farnsworth** ..... Professor of Agronomy (1946)  
B.S., Brigham Young University, 1937; M.S., Massachusetts State College, 1938; Ph.D., Ohio State University, 1941.
- Georgia Faux** ..... Special Instructor in Speech (1955)  
A.B., Brigham Young University, 1944.
- \*M. Charles Faux** ..... Assistant Professor of Business Management (1957)  
B.S., University of Utah, 1952; M.B.A., Harvard Graduate School of Business Administration, 1954.
- Lawrence Fearnley** ..... Assistant Professor of Mathematics (1957)  
B.S., London University, 1953; Ph.D., University of Utah, 1959.
- Paul E. Felt** ..... Assistant Professor of Religion (1957)  
B.A., Brigham Young University, 1942; M.S., University of Utah, 1954.
- Hal G. Ferguson** ..... Instructor in Sociology (1959)  
B.A., M.A., Brigham Young University, 1954, 1957.
- D. Allen Firmage** ..... Professor of Engineering (1955)  
B.S.C.E., University of Utah, 1940; M.S., Massachusetts Institute of Technology, 1941.
- Chad J. Flake** ..... Instructor in Library Science (1953)  
B.A., Brigham Young University, 1953; M.A., University of Denver, 1955.
- Royce P. Flandro** ..... Assistant Professor of Education (1953)  
B.S., M.S., University of Utah, 1948, 1950; Ed.D., University of Indiana, 1957.
- Harvey J. Fletcher** ..... Professor of Mathematics (1953)  
B.S., Massachusetts Institute of Technology, 1944; M.S., California Institute of Technology, 1948; Ph.D., University of Utah, 1954.
- Marvin H. Folsom** ..... Assistant Professor of Languages (1961)  
B.A., M.A., Brigham Young University, 1956, 1957; Ph.D., Cornell University, 1961.
- Joseph C. Free** ..... Instructor in Mechanical Engineering (1961)  
B.E.S., Brigham Young University, 1958; M.S., California Institute of Technology, 1961.

- Herbert H. Frost** ..... Associate Professor of Zoology (1960)  
B.A., M.A., Brigham Young University, 1941, 1947; Ph.D., Cornell University, 1955.
- Dean K. Fuhrman** ..... Professor of Engineering (1954)  
B.S., M.S., Utah State University, 1941, 1950; Ph.D., University of Wisconsin, 1952.
- Glen S. Gagon** ..... Assistant Professor of Instruction (1955)  
B.S., M.Ed., Brigham Young University, 1951, 1956; Ed.D., Colorado State College, 1960.
- LaVell C. Gamett** ..... Assistant Professor of Industrial Arts (1946)  
B.S., Brigham Young University, 1935; M.S., University of Oregon, 1951.
- Elizabeth L. Gardner** ..... Instructor in Clothing and Textiles and  
in Housing and Design (1952)  
B.S., Utah State University, 1948; M.S., University of California at Los Angeles, 1954.
- John H. Gardner** ..... Professor of Physics (1949)  
B.S., Utah State University, 1943; M.A., Ph.D., Harvard University, 1947, 1950.
- Byron W. Gassman** ..... Assistant Professor of English (1960)  
B.A., Brigham Young University, 1955; M.A., Ph.D., University of Chicago, 1956, 1960.
- Crawford Gates** ..... Professor of Music (1948)  
B.A., San Jose State College, 1944; M.A., Brigham Young University, 1948; Ph.D., Eastman School of Music, University of Rochester, 1954.
- David D. Geddes** ..... Associate Professor of Physical Education and Health (1952)  
B.S., M.S., Brigham Young University, 1950, 1952; Ph.D., University of Southern California, 1959.
- Burton C. Gee** ..... Instructor in Mathematics (1960)  
B.S., Brigham Young University, 1951; M.S., Oregon State College, 1958.
- O. Norman Geertsens** ..... Assistant Professor of Physics (1941)  
B.S., Brigham Young University, 1930; M.S., University of California at Los Angeles, 1951.
- Eileen Gibbons** ..... Instructor in English (1959)  
B.S., Utah State University, 1953; M.A., Brigham Young University, 1959.
- M. Carl Gibson** ..... Assistant Professor of Modern and Classical  
Languages (1949)  
B.A., M.A., Brigham Young University, 1947, 1949; Ph.D., University of Oregon, 1960.
- Lt. Colonel William J. Gibson** ..... Professor of Air Science (1959)  
B.S., Utah State University, 1948.
- Gurcharan S. Gill** ..... Instructor in Mathematics (1960)  
B.S., Brigham Young University, 1958; M.S., University of Utah, 1960.
- Preston R. Gledhill** ..... Professor of Speech (1947)  
Degré Supérieur, La Sorbonne, 1938; B.A., Brigham Young University, 1939; M.A., Louisiana State University, 1940; Ph.D., University of Wisconsin, 1951.
- J. Rex Goates** ..... Professor of Chemistry (1947)  
B.S., Brigham Young University, 1942; Ph.D., University of Wisconsin, 1947.
- Max C. Golightly** ..... Instructor in Speech (1960)  
B.A., M.A., Brigham Young University, 1950, 1959.
- A. Harold Goodman** ..... Associate Professor of Music (1960)  
B.A., University of Arizona, 1947; M.A., Ed.D., University of Southern California, 1951, 1960.
- Nan Osmond Grass** ..... Assistant Professor of English (1951)  
B.A., Brigham Young University, 1930; M.A., Stanford University, 1954.
- Karen M. Grimmett** ..... Special Instructor in Physical Education (1960)  
B.S., Brigham Young University, 1959.
- Lue S. Groesbeck** ..... Instructor in Music (1957)  
B.A., Brigham Young University, 1948.

- Stewart L. Grow** ..... Professor of History and Political Science (1947)  
B.S., M.S., Brigham Young University, 1935, 1948; Ph.D., University of Utah, 1954.
- Clark J. Gubler** ..... Professor of Chemistry (1958)  
B.A., Brigham Young University, 1939; M.A., Utah State University, 1941; Ph.D., University of California, 1945; Established Investigator of the American Heart Association, 1960.
- Donworth Gubler** ..... Instructor in Modern Languages (1954)  
B.A., M.A., Brigham Young University, 1948, 1949.
- Richard L. Gunn** ..... Associate Professor of Art and Education (1948)  
B.S., M.S., Brigham Young University, 1947, 1950; Ed.D., Stanford University, 1955; Banff School of Art.
- Fred E. Guymon** ..... Instructor in Business Education and Office Management (1955)  
B.S., University of Utah, 1948; M.E., University of Cincinnati, 1951.
- LeRoy R. Hafen** ..... Professor of History (1954)  
B.A., Brigham Young University, 1916; M.A., University of Utah, 1919; Ph.D., University of California, 1924; Litt.D., University of Colorado, 1935.
- William J. Hafen** ..... Assistant Professor of Recreation (1954)  
B.S., Brigham Young University, 1950; M.A., State College of Washington, 1953; D.R., Indiana University, 1960.
- Richard W. Hales** ..... Professor of Physics (1952)  
B.S., Iowa State College, 1946; Ph.D., University of California, 1952.
- Wayne B. Hales** ..... Professor of Physics and Mathematics;  
Dean of General College (1930)  
B.A., Brigham Young University, 1916; M.A., University of Utah, 1922; Ph.D., California Institute of Technology, 1926.
- S/Sgt. George M. Hall** ..... Instructor in Air Science (1958)
- H. Tracy Hall** ..... Professor of Chemistry; Director of the Research Division (1955)  
B.S., M.S., Ph.D., University of Utah, 1942, 1943, 1948.
- Merrill J. Hallam** ..... Professor of Agronomy (1952)  
B.A., Brigham Young University, 1950; Ph.D., Iowa State College, 1952.
- John R. Halliday** ..... Professor of Music (1936)  
B.A., M.A., Brigham Young University, 1935, 1936; Ph.D., Eastman School of Music, University of Rochester, 1941.
- Lawson D. Hamblin** ..... Assistant Professor of Library Science (1948)  
B.A., Brigham Young University, 1938; LL.B., Washington College of Law, 1948.
- \*George H. Hansen** ..... Professor of Geology and Geography (1927)  
B.S., Utah State University, 1918; M.S., Ph.D., George Washington University, 1925, 1927.
- Harold I. Hansen** ..... Professor of Speech (1952)  
B.S., Utah State University, 1937; M.A., Ph.D., State University of Iowa, 1940, 1949.
- Ralph W. Hansen** ..... Instructor in Library Science (1953)  
B.A., M.A., Brigham Young University, 1951, 1954.
- Terrence L. Hansen** ..... Associate Professor of Languages (1960)  
B.A., University of Utah, 1946; M.A., Ph.D., Stanford University, 1948, 1950.
- Blaine C. Hardy** ..... Assistant Professor of Educational Philosophy and Programs (1961)  
B.A., Washington State University, 1957; M.A., Brigham Young University, 1959.
- Kenneth R. Hardy** ..... Associate Professor of Psychology (1954)  
B.A., M.A., University of Utah, 1948, 1949; Ph.D., University of Michigan, 1954.
- Callis R. Harms** ..... Assistant Professor of Educational Administration (1960)  
B.S., M.Ed., Brigham Young University, 1952, 1956; Ed.D., Arizona State University, 1961.
- James M. Harris** ..... Associate Professor of Educational Psychology (1955)  
B.S., M.S., Utah State University, 1952, 1953; Ph.D., Cornell University, 1955.

- John B. Harris** ..... Instructor in English (1958)  
B.A., M.A., Brigham Young University, 1955, 1956.
- Bertrand F. Harrison** ..... Professor of Botany (1929)  
B.S., M.S., Brigham Young University, 1930, 1931; Ph.D., University of Chicago, 1937.
- Betty D. Harrison** ..... Special Instructor in Educational Research and  
Services (1961)  
B.S., M.S., Brigham Young University, 1959, 1960.
- Charles J. Hart** ..... Professor of Recreation and of Physical and Health  
Education (1925)  
B.S., Utah State University, 1922; M.A., Ed.D., New York University, 1932, 1945.
- David K. Hart** ..... Instructor in Political Science (1960)  
B.S., Brigham Young University, 1957; M.A., University of California at Berkeley,  
1960.
- Edward L. Hart** ..... Professor of English (1952)  
B.S., University of Utah, 1939; M.A., University of Michigan, 1941; D.Phil., Oxford  
University (England), 1950.
- Milton F. Hartvigsen** ..... Professor of Physical Education; Dean of the  
College of Physical Education (1956)  
B.S., M.Ed., Utah State University, 1930, 1939; Ed.D., University of California at Los  
Angeles, 1956.
- Eva Marlene Hatton** ..... Instructor in Homemaking Education (1961)  
B.S., Ricks College, 1955; M.S., Brigham Young University, 1956.
- Floyd E. Haupt** ..... Assistant Professor of Mathematics (1954)  
B.S., M.S., University of Arizona, 1947, 1948.
- Nena Rey Hawkes** .... Special Instructor in Physical Education for Women (1961)  
B.S., Utah State University, 1954.
- Richard T. Hawkins** ..... Assistant Professor of Chemistry (1959)  
B.A., Brigham Young University, 1951; Ph.D., University of Illinois, 1959.
- Darwin L. Hayes** ..... Special Instructor in English (1961)  
B.A., Brigham Young University, 1957.
- C. Lynn Hayward** ..... Professor of Zoology (1930)  
B.S., M.S., Brigham Young University, 1927, 1931; Ph.D., University of Illinois,  
1941.
- Alma Heaton** ..... Assistant Professor of Recreation (1953)  
B.S., M.S., Utah State University, 1950, 1951.
- Israel C. Heaton** ..... Professor of Recreation (1956)  
B.S., M.S., Utah State University, 1940, 1941; Re.D., University of Indiana, 1955.
- Charles A. Henson** ..... Special Instructor in Speech (1958)  
B.S., M.S., Brigham Young University, 1957, 1959.
- Richard H. Henstrom** ..... Instructor in Speech (1957)  
B.F.A., M.F.A., University of Utah, 1949, 1953.
- Karl P. Herde, Jr.** ..... Instructor in Business Education and Office  
Management (1957)  
B.S., M.S., Brigham Young University, 1949, 1956.
- Jean-Pierre Heudier** ..... Instructor in Languages (1960)  
B.A., Montana State University, 1957; M.A., Brigham Young University, 1960.
- Dustin H. Heuston** ..... Instructor in English (1959)  
B.A., Hamilton College, 1954; M.A., Stanford University, 1959.
- John C. Higgins** ..... Instructor in Mathematics (1961)  
B.A., M.A., Brigham Young University, 1958, 1960.
- Armin J. Hill** ..... Professor of Physics; Dean of the College of  
Physical and Engineering Sciences (1957)  
B.S., M.S., Montana State College, 1932, 1938; M.S., Ph.D., California Institute of  
Technology, 1949, 1950.

- L. Douglas Hill** ..... Instructor in English (1959)  
B.S., Brigham Young University, 1954
- Max W. Hill** ..... Assistant Professor of Physics (1958)  
B.A., Brigham Young University, 1954; Ph.D., University of California, 1959.
- Kenneth L. Hillam** ..... Instructor in Mathematics (1957)  
B.S., M.S., University of Utah, 1949, 1956.
- Ray C. Hillam** ..... Instructor in Political Science (1960)  
B.A., University of Utah, 1955; M.A., George Washington University, 1958.
- Lynn M. Hilton** ..... Associate Professor of Education (1953)  
B.S., M.S., University of Utah, 1950; Ph.D., University of Chicago, 1952.
- Lehi F. Hintze** ..... Professor of Geology (1955)  
B.A., University of Utah, 1941; M.A., Ph.D., Columbia University, 1949, 1951.
- Cynthia C. Hirst** ..... Instructor in Physical Education (1948)  
B.A., University of Utah, 1947; M.S., University of Washington, 1952.
- Leona Holbrook** ..... Professor of Physical Education (1937)  
B.S., University of Utah, 1929; M.A., Ed.D., Columbia University, 1935, 1950.
- Richard L. Holbrook** ..... Assistant Professor of Human Development  
and Family Relationships (1959)  
B.S., University of Utah, 1950; M.S., Columbia University, 1952.
- Marie Holley** ..... Assistant Professor of Nursing (1961)  
B.S., University of Utah, 1959; M.A., New York University, 1961.
- Clarence J. Holtkamp** ..... Instructor in Industrial Education (1959)  
B.S., University of New Mexico, 1949.
- Shirl J. Hone** ..... Instructor in Mathematics (1959)  
B.S., Utah State University, 1949; M.S., Northwestern University, 1952.
- Keith H. Hoopes** ..... Assistant Professor of Animal Husbandry (1957)  
B.S., Utah State University, 1957; D.V.M., State College of Washington, 1956.
- Russell N. Horiuchi** ..... Instructor in Geography (1961)  
B.A., Brigham Young University, 1943; M.A., University of California, 1958.
- A. Burt Horsley** ..... Assistant Professor of Philosophy and Religion (1956)  
B.A., M.A., Brigham Young University, 1945, 1954; Dd.P., Münster University, 1955;  
Ph.D., Westphalian Welhelms Universität, Münster, Germany, 1956.
- Frank Horton** ..... Instructor in English (1955)  
B.A., Brigham Young University, 1951; M.A., University of Southern California, 1957.
- William A. Hoskisson** ..... Assistant Professor of Bacteriology (1957)  
B.S., M.S., Utah State University, 1938, 1941; Ph.D., University of Illinois, 1944.
- Alice E. Howe** ..... Instructor in English (1959)  
B.A., M.A., Brigham Young University, 1958, 1961.
- Robert J. Howell** ..... Professor of Psychology (1952)  
B.A., M.A., Ph.D., University of Utah, 1948, 1949, 1951.
- Darcus D. Hyde** ..... Instructor in English (1957)  
B.A., Brigham Young University, 1956.
- Paul V. Hyer** ..... Assistant Professor of History (1957)  
B.A., Brigham Young University, 1951; M.A., Ph.D., University of California, 1953,  
1960.
- \*Scott S. Hymas** ..... Instructor in English (1958)  
B.A., Brigham Young University, 1955; M.A., Western Reserve University, 1958.
- Reed M. Izatt** ..... Associate Professor of Chemistry (1956)  
B.S., Utah State University, 1951; Ph.D., Pennsylvania State University, 1954.
- Briant S. Jacobs** ..... Professor of English (1946)  
B.A., Brigham Young University, 1939; Ph.D., State University of Iowa, 1944.
- Phyllis C. Jacobson** ..... Instructor in Physical Education for Women (1957)  
B.S., M.S., Utah State University, 1953, 1954.

- M. Wells Jakeman** ..... Professor of Archaeology (1946)  
B.A., University of Utah, 1931; M.A., University of Southern California, 1932; Ph.D., University of California, 1938.
- Martha R. Jenny** ..... Associate Professor of Nursing (1952)  
Diploma, Presbyterian Hospital School of Nursing, Chicago, 1926; B.S., Teachers College, Columbia University, 1939; M.S., University of Wisconsin, 1946.
- De Lamar Jensen** ..... Associate Professor of History (1957)  
B.A., Brigham Young University, 1952; M.A., Ph.D., Columbia University, 1953, 1957.
- James A. Jensen** ..... Curator of Geology (1961)
- Lucille N. Jensen** ..... Instructor in Human Development and Family Relationships (1956)  
B.S., University of Utah, 1951; M.S., Kansas State College, 1956.
- Mary B. Jensen** ..... Instructor in Physical Education and Recreation (1953)  
B.A., Park College of Missouri, 1939.
- Vern H. Jensen** ..... Assistant Professor of Personnel Guidance (1949)  
B.S., M.S., Brigham Young University, 1948, 1950; Ed.D., University of Colorado, 1957.
- Gloria D. Jensen** ..... Instructor in Library Science (1954)  
B.S., Brigham Young University, 1950; M.S., Columbia University, 1954.
- Ernest C. Jeppsen** ..... Professor of Industrial Education and Coordinator, Industrial and Technical Education (1959)  
B.S., Utah State University, 1926; M.S., Colorado State University, 1938.
- J. Lorin Jex** ..... Assistant Professor of Speech (1949)  
B.A., M.A., Brigham Young University, 1947, 1950.
- Franz M. Johansen** ..... Instructor in Art (1956)  
B.A., M.A., Brigham Young University, 1955, 1960; Illinois Institute of Technology, California School Arts and Crafts.
- Eldred A. Johnson** ..... Associate Professor of Accounting (1955)  
B.A., M.A., Brigham Young University, 1949, 1950; C.P.A., California, 1952.
- J. Richard Jones** ..... Instructor in Physical Education for Men (1961)  
B.S., M.S., Brigham Young University, 1951, 1955.
- Jens J. Jonsson** ..... Professor of Electrical Engineering (1953)  
B.S.G.E., B.S.E.E., University of Utah, 1944, 1946; M.S.E.E., Ph.D., Purdue University, 1947, 1951.
- Eleanor Jorgensen** ..... Assistant Professor of Clothing and Textiles (1949)  
B.S., Brigham Young University, 1946; M.S., Kansas State College, 1954.
- Kenneth W. Karren** ..... Assistant Professor of Civil Engineering (1961)  
B.S., M.S., University of Utah, 1953, 1961.
- Joseph J. Keeler** ..... Assistant Professor of Music; University Organist (1935)  
B.S., M.A., Brigham Young University, 1940, 1950.
- C. Rodney Kimball** ..... Instructor in Physical Education and Health (1937)  
B.S., Brigham Young University, 1955.
- Edwin R. Kimball** ..... Professor of Physical Education (1935)  
B.S., Brigham Young University, 1926; M.S., University of Southern California, 1935; Ed.D., University of Oregon, 1955.
- Alma W. King** ..... Assistant Professor of Religion (1956)  
B.S., M.S., Brigham Young University, 1930, 1936.
- Hattie M. Knight** ..... Assistant Professor of Library Science (1941)  
B.S., Brigham Young University, 1941; B.S., in L.S., University of Denver, 1943; M.S., in L.S., George Peabody College for Teachers, 1951.
- Marion Kohler** ..... Assistant Professor of Nursing (1954)  
Diploma, Salt Lake General Hospital, 1943; B.S., Brigham Young University, 1951; M.N., University of Washington, 1957.

- Mary A. Krider** ..... Associate Professor of Educational Psychology (1954)  
B.A., University of Nebraska, 1927; Ed.M., University of Oklahoma, 1940; Ed.D.,  
Wayne State University, 1959.
- Merle E. Lamson** ..... Instructor in Library Science (1961)  
B.S., Brigham Young University, 1955; M.S., Columbia University, 1960.
- Valerie G. Langer** ..... Special Instructor in Nursing (1960)  
B.S., University of Utah, 1958.
- A. Dean Larsen** ..... Instructor in Library Science (1956)  
B.S., Brigham Young University, 1954; M.A., University of Michigan, 1960.
- Don H. Larsen** ..... Professor of Bacteriology (1952)  
B.S., Brigham Young University, 1940; M.A., University of Nebraska, 1942; Ph.D.,  
University of Utah, 1950.
- Kenneth M. Larsen** ..... Assistant Professor of Mathematics (1960)  
B.A., University of Utah, 1950; M.A., Brigham Young University, 1956.
- Clinton F. Larson** ..... Associate Professor of English (1947)  
B.A., M.A., University of Utah, 1943, 1947; Ph.D., University of Denver, 1956.
- Gustive O. Larson** ..... Associate Professor of Church History and  
Philosophy (1954)  
B.A., M.A., University of Utah, 1920, 1926.
- \*Reuben D. Law** ..... Professor of Education (1936)  
B.S., M.S., Utah State University, 1928, 1933; Ed.D., University of Southern Cal-  
ifornia, 1941.
- W. Derby Laws** ..... Professor of Agronomy (1960)  
B.A., Brigham Young University, 1939; M.S., Utah State University, 1941; Ph.D.,  
Ohio State University, 1944.
- Harold R. Laycock** ..... Associate Professor of Music (1949)  
B.A., M.A., Brigham Young University, 1937, 1947; D.M.A., University of Southern  
California, 1960.
- Ralph G. Laycock** ..... Assistant Professor of Music (1953)  
B.A., Brigham Young University, 1941; M.S., Juilliard School of Music, N.Y.C., 1948.
- Robert L. Layton** ..... Assistant Professor of Geography (1954)  
B.S., M.S., University of Utah, 1951, 1952; Ph.D., University of Syracuse, 1962.
- Harold W. Lee** ..... Professor of Modern Languages (1937)  
B.A., M.A., Brigham Young University, 1938, 1940; Ph.D., Stanford University, 1946.
- Stella Dixon Lewis** ..... Special Instructor in Housing and Home  
Management (1956)  
B.S., Brigham Young University, 1938.
- Earl L. Lindley** ..... Instructor in Physical Education for Men (1961)  
B.S., M.S., Utah State University, 1954, 1957.
- Wesley P. Lloyd** ..... Professor of Personnel and Guidance;  
Dean of Graduate School (1935)  
B.S., M.S., Brigham Young University, 1927, 1934; Ph.D., University of Chicago, 1937.
- Lester Long** ..... Special Instructor in Industrial Education (1959)  
B.S., Brigham Young University, 1958.
- Daniel H. Ludlow** ..... Professor of Religion (1955)  
B.S., Utah State University, 1946; M.S., Indiana University, 1953; Ed.D., Columbia  
University, 1955.
- Ross "J" McArthur** ..... Associate Professor of Industrial Arts (1956)  
B.S., M.S., Utah State University, 1949, 1953; Ed.D., University of Missouri, 1955.
- Cleo McCracken** ..... Instructor in Personnel and Guidance (1954)  
B.S., Utah State University, 1937; M.A., Syracuse University, 1951.
- Major Donald E. McCulloch** ..... Assistant Professor of Air Science (1960)  
B.S., Columbia University, 1957.

- Quinn G. McKay** ..... Associate Professor of Business Management (1960)  
B.S., Brigham Young University, 1956; M.B.A., D.B.A., Harvard University, 1956.  
1960.
- John E. McKendrick** ..... Assistant Professor of English (1953)  
B.A., M.A., University of Utah, 1942, 1949.
- Lynn A. McKinlay** ..... Assistant Professor of Speech (1955)  
Certificate, Post Graduate Certificate, Pasadena Community Playhouse, College of  
Theatre Arts, 1936, 1937.
- Max E. McKinnon** ..... Instructor in Industrial Arts (1957)  
B.S., M.S., Utah State University, 1949, 1954.
- Kent H. McKnight** ..... Associate Professor of Botany (1947)  
B.S., M.S., Brigham Young University, 1948, 1952; Ph.D., University of Michigan,  
1955.
- Maughan W. McMurdie** ..... Special Instructor in Music (1959)  
B.S., Utah State University, 1954.
- Delbert H. McNamara** ..... Associate Professor of Physics (1955)  
B.S., Ph.D., University of California (Berkeley), 1947, 1950.
- C. Craig McNeil** ..... Instructor in English (1959)  
B.S., M.A., Brigham Young University, 1955, 1960.
- Walter E. McPhie** ..... Assistant Professor of Education (1959)  
B.S., Utah State University, 1952; M.A., University of Utah, 1953; Ed.D., Stanford  
University, 1959.
- Melvin P. Mabey** ..... Associate Professor of History and Political Science (1955)  
B.S., M.A., Brigham Young University, 1947, 1953; D. Phil., Oxford University (Eng-  
land), 1955.
- Harold S. Madsen** ..... Instructor in English (1956)  
B.A., M.A., University of Utah, 1953, 1960.
- Truman G. Madsen** ..... Associate Professor of Philosophy and Religion (1957)  
B.S., M.S., University of Utah, 1951, 1952; A.M., Ph.D., Harvard University, 1957.  
1960.
- Francis R. Magleby** ..... Instructor in Art (1959)  
B.S., M.S., Brigham Young University, 1950, 1951; Art Students League, Columbia  
University.
- Garth L. Mangum** ..... Associate Professor of Economics (1960)  
B.S., Brigham Young University, 1956; M.P.A., Ph.D., Harvard University, 1958, 1960.
- Robert P. Manookin** ..... Instructor in Library Science (1959)  
B.A., Brigham Young University, 1955; M.Mus., University of Illinois, 1959.
- James Mason** ..... Instructor in Music (1962)  
B.A., M.A., Brigham Young University, 1955, 1957.
- Conan E. Mathews** ..... Professor of Art; Dean of the  
College of Fine Arts (1956)  
B.A., College of Idaho, 1936; M.F.A., University of Utah, 1950; California School  
of Fine Arts, Columbia University.
- Merlin J. Mecham** ..... Associate Professor of Speech (1954)  
B.A., Brigham Young University, 1948; M.S., Utah State University, 1949; Ph.D.,  
Ohio State University, 1954.
- J. Keith Melville** ..... Associate Professor of Political Science (1957)  
B.A., University of Utah, 1947; M.A., University of California, 1949; Ph.D., Univer-  
sity of Utah, 1956.
- Evan J. Memmott** ..... Instructor in Education (1955)  
B.S., M.S., Utah State University, 1950, 1962; M.S., Indiana University, 1953.
- Keith H. Meservy** ..... Instructor in Religion (1958)  
B.A., Brigham Young University, 1951.
- Elaine Michaelis** ..... Special Instructor in Physical Education (1960)  
B.S., Brigham Young University, 1960.
- Carol Michie** ..... Special Instructor in Speech (1959)  
B.S., Brigham Young University, 1959.

- \*Seymour Mikkelsen** ..... Instructor in Animal Husbandry (1956)  
B.S., Brigham Young University, 1948.
- Martin L. Miller** ..... Assistant Professor of Physics and Mathematics (1942)  
B.A., M.A., Brigham Young University, 1942, 1950.
- Marion Millett** ..... Assistant Professor of Geography (1958)  
B.A., University of Southern California, 1954; M.A., University of Colorado, 1956.
- Gayle F. Miner** ..... Assistant Professor of Electrical Engineering (1960)  
B.S., M.S., University of Utah, 1959, 1960.
- Albert O. Mitchell** ..... Professor of Dramatic Arts (1956)  
B.S., University of Utah, 1933, 1935; Ph.D., University of Wisconsin, 1938.
- Hal D. Mitchell** ..... Assistant Professor of Physical Education;  
Head Football Coach (1959)  
B.S., University of California (Los Angeles), 1953.
- Olive K. B. Mitchell** ..... Instructor in English (1947)  
B.A., University of Arizona, 1932; M.A., Brigham Young University, 1934.
- Rudy Moe** ..... Instructor in Physical Education (1959)  
B.A., Concordia College, Moorhead, Minnesota, 1953.
- J. C. Moffitt** ..... Professor of Educational Administration and Special Consultant  
to the Department of Educational Administration (1953)  
B.S., M.S., Brigham Young University, 1926, 1929; Ph.D., University of Chicago, 1940.
- Elaine R. Monsen** ..... Assistant Professor of Food and Nutrition (1960)  
B.A., University of Utah, 1956; M.S., University of California, 1959; Ph.D., University of California, 1961.
- R. Joseph Monsen** ..... Assistant Professor of Economics (1960)  
B.S., University of Utah, 1953; M.A., Stanford University, 1954; Ph.D., University of California at Berkeley, 1960.
- Darrel J. Monson** ..... Associate Professor of Electrical Engineering (1956)  
B.S., University of Utah, 1943; M.S., University of California (Berkeley), 1952.
- Robert R. Montgomery** ..... Instructor in Nursing (1962)  
R.N., St. Mary's School of Nursing, 1952; B.S., Louisiana State University, 1950.
- Glen Moore** ..... Associate Professor of Botany (1958)  
B.S., M.S., Brigham Young University, 1949, 1950; Ph.D., University of Chicago, 1953.
- Hal G. Moore** ..... Assistant Professor of Mathematics (1961)  
B.S., M.S., University of Utah, 1952, 1957.
- Alonso J. Morley** ..... Professor of Speech (1928)  
B.A., M.A., Brigham Young University, 1925, 1931; Ph.D., University of Iowa, 1935.
- Edwin B. Morrell** ..... Assistant Professor of Political Science (1961)  
B.A., Brigham Young University, 1956; M.A., Harvard University, 1959.
- Jeannette Morrell** ..... Instructor in English (1956)  
B.A., M.A., University of Utah, 1933, 1935.
- A. Reed Morrill** ..... Professor of Educational Administration (1948)  
B.S., M.S., Brigham Young University, 1928, 1937; Ed.D., University of Oregon, 1948.
- Lawrence Morris** ..... Professor of Animal Husbandry (1952)  
B.S.A., University of Arizona, 1925; M.S., Texas A. & M., 1928; Ph.D., Louisiana State University, 1938.
- Sadie O. Morris** ..... Professor of Food and Nutrition (1957)  
B.S., M.S., Utah State University, 1921, 1922; Ph.D., Columbia University, 1933.
- Linnea Morrison** ..... Assistant Professor of Nursing (1961)  
B.S., Gustavus Adolphus, 1956; M.A., Columbia Teachers College, 1957.
- Darrell Moses** ..... Assistant Professor of Educational Psychology (1959)  
B.A., M.A., University of Utah, 1952, 1953; Ph.D., University of Southern California, 1960.

- J. Joel Moss** ..... Professor of Human Development and Family Relationships (1961)  
B.S., M.S., Brigham Young University, 1948, 1949; Ph.D., North Carolina University, 1954.
- J. Richard Murdock** ..... Assistant Professor of Botany (1952)  
B.S., M.S., Brigham Young University, 1949, 1951; Ph.D., State College of Washington, 1957.
- Joseph R. Murphy** ..... Assistant Professor of Zoology (1960)  
B.A., M.A., Brigham Young University, 1941, 1947; Ph.D., University of Nebraska, 1957.
- Keith L. Naegle** ..... Special Instructor in Industrial Education (1961)  
B.S., Utah State University, 1954.
- \*William V. Nash** ..... Instructor in Library Science (1957)  
B.A., Brigham Young University, 1950; M.S., University of Illinois, 1957.
- Jay Naylor** ..... Instructor in Recreation (1961)  
B.S., M.S., Brigham Young University, 1958, 1959.
- Donald K. Nelson** ..... Assistant Professor of Library Science; Assistant Librarian (1961)  
B.S., Utah State University, 1938; M.B.A., University of Denver, 1949; Ph.D., University of California, 1961.
- Glen T. Nelson** ..... Professor of Economics (1954)  
B.S., M.S., Utah State University, 1942, 1948; Ph.D., University of Illinois, 1950.
- H. Mark Nelson** ..... Assistant Professor of Physics (1959)  
B.S., M.S., Brigham Young University, 1953, 1954; Ph.D., Harvard University, 1959.
- K. LeRoi Nelson** ..... Professor of Chemistry (1956)  
B.S., Utah State University, 1948; Ph.D., Purdue University, 1952.
- Hugh W. Nibley** ..... Professor of History and Religion (1946)  
B.A., University of California at Los Angeles, 1934; Ph.D., University of California, 1938.
- Reid N. Nibley** ..... Assistant Professor of Music (1961)  
B.F.A., M.A., University of Utah, 1950, 1953.
- Henry J. Nicholes** ..... Professor of Health Education (1946)  
B.A., Brigham Young University, 1935; M.S., Ph.D., University of Wisconsin, 1939, 1941.
- Fred K. Nielsen** ..... Instructor in Religious Instruction (1956)  
B.A., M.A., Harvard University, 1954, 1955.
- Eve Nielson** ..... Instructor in Library Science (1949)  
B.S., Utah State University, 1945; M.S., University of Southern California, 1959.
- Howard C. Nielson** ..... Professor of Economics (1957)  
B.S., University of Utah, 1947; M.S., University of Oregon, 1949; M.B.A., Ph.D., Stanford University, 1956, 1957.
- Lorna R. Nielson** ..... Special Instructor in English (1961)  
B.A., M.A., Brigham Young University, 1956, 1962.
- Kenneth J. Nix** ..... Assistant Professor of Air Science (1961)  
B.S., University of Utah, 1949.
- John D. Nixon** ..... Instructor in Library Science (1961)  
B.S., Brigham Young University, 1957; M.A., University of Denver, 1961.
- Sandra H. Noall** ..... Special Instructor in Nursing (1960)  
B.S., University of Utah, 1960.
- Quentin R. Nordgren** ..... Assistant Professor of Music (1955)  
B.A., M.A., Brigham Young University, 1942, 1950; Ph.D., Indiana University, 1955.
- Drayton B. Nuttall** ..... Professor of Educational Administration and Director of Educational Research (1960)  
B.A., M.A., University of Utah, 1936, 1941; Ed.D., University of California at Berkeley, 1951.

- Keith R. Oakes** ..... Professor of Educational Administration (1957)  
B.S., M.S., Utah State University, 1940, 1948; Ed.D., University of Southern California, 1954.
- Clinton L. Oaks** ..... Professor of Business Management (1957)  
B.A., Brigham Young University, 1948; M.B.A., Ph.D., Stanford University, 1950, 1955.
- J. Lloyd Olpin** ..... Assistant Professor of Mathematics (1955)  
B.S., Brigham Young University, 1925; M.S., Colorado University, 1938.
- Ernest L. Olson** ..... Assistant Professor of English (1953)  
B.A., M.A., University of Utah, 1948, 1949.
- John E. Ord** ..... Assistant Professor of Education (1957)  
B.S., Utah State University, 1940; M.S., University of Utah, 1949; Ed.D., Stanford University, 1958.
- Kathryn Orme** ..... Instructor in Clothing and Textiles (1961)  
B.S., Brigham Young University, 1958; M.A., Oregon State College, 1961.
- Scott G. Orrock** ..... Instructor in Human Development and Family Relationships (1953)  
B.A., M.A., Brigham Young University, 1952, 1953.
- Bryce B. Orton** ..... Assistant Professor of Accounting (1961)  
B.S., M.B.A., University of Oregon, 1951, 1957.
- James B. Ott** ..... Assistant Professor of Chemistry (1960)  
B.S., M.S., Brigham Young University, 1955, 1956; Ph.D., University of California, 1959.
- Glen F. Ovard** ..... Assistant Professor of Educational Philosophy (1958)  
B.S., M.S., Brigham Young University, 1949, 1954; Ed.D., Stanford University, 1958.
- Ronald T. Pace** ..... Instructor in Animal Husbandry (1961)  
B.S., M.S., Brigham Young University, 1955, 1958.
- Thane J. Packer** ..... Associate Professor of Youth Leadership (1959)  
B.S., Utah State University, 1939.
- Spencer J. Palmer** ..... Assistant Professor of History and Religious Instruction (1962)  
B.A., M.A., Brigham Young University, 1952, 1959.
- Kathryn B. Pardoe** ..... Assistant Professor of Speech (1934)  
B.A., Brigham Young University, 1934.
- Clyde A. Parker** ..... Associate Professor of Personnel and Guidance (1953)  
B.S., M.S., Brigham Young University, 1952; Ph.D., University of Minnesota, 1957.
- Karen F. Parker** ..... Special Instructor in English (1961)  
B.S., M.A., Brigham Young University, 1956, 1962.
- JoAnn Parry** ..... Instructor in Physical Education for Women (1961)  
B.S., University of Utah, 1960; M.S., Washington State University, 1961.
- Robert C. Patch** ..... Assistant Professor of Religion (1959)  
B.A., University of New Mexico, 1945; M.A., Brigham Young University, 1949.
- Jean R. Paulson** ..... Assistant Professor of Journalism (1960)  
B.A., Brigham Young University, 1930.
- John W. Payne** ..... Assistant Professor of Sociology (1947)  
B.A., M.A., Brigham Young University, 1936, 1948.
- Glenn L. Pearson** ..... Assistant Professor of Religion (1951)  
B.S., Utah State University, 1949; M.A., Brigham Young University, 1951.
- Van L. Perkins** ..... Instructor in History (1960)  
B.A., University of Utah, 1956; M.A., Harvard University, 1958.
- Dean A. Peterson** ..... Professor of Business Education and Office Management; Director of the Summer School (1942)  
B.S., Brigham Young University, 1938; M.S., Ed.D., University of Southern California, 1942, 1959.

- Evan T. Peterson** ..... Assistant Professor of Sociology (1959)  
B.S., M.S., Brigham Young University, 1952, 1953; Ph.D., University of Michigan, 1959.
- Hugh W. Peterson** ..... Associate Professor of Chemistry (1927)  
B.A., M.A., Brigham Young University, 1916, 1928; Ph.D., State University of Iowa, 1936.
- Boyd G. Pett** ..... Instructor in the Technical and Semi-Professional Institute (1961)  
B.S., M.S., Utah State University, 1954, 1961.
- William Revell Phillips** ..... Associate Professor of Geology (1957)  
B.S., M.S., Ph.D., University of Utah, 1950, 1951, 1954.
- Leonid Polevoy** ..... Instructor in Languages (1960)  
B.A., M.A., Harvard University, 1948, 1950.
- Richard D. Poll** ..... Professor of History and Political Science (1948)  
B.A., M.A., Texas Christian University, 1938, 1939; Ph.D., University of California, (Berkeley), 1948.
- J. Perry Polson** ..... Assistant Professor of Business Education and Office Management (1952)  
B.S., M.S., University of Utah, 1947, 1952; Ph.D., University of Southern California, 1961.
- Blaine M. Porter** ..... Professor of Human Development and Family Relationships (1955)  
B.S., M.A., Brigham Young University, 1947, 1949; Ph.D., Cornell University, 1952.
- Norma Potter** ..... Instructor in Nursing (1953)  
Diploma, Latter-day Saints Hospital, Salt Lake City, 1931; B.S., University of Utah, 1950; M.N., University of Washington, 1961.
- Virginia B. Poulson** ..... Assistant Professor of Homemaking Education (1950)  
B.S., Brigham Young University, 1931; M.Ed., Colorado A. & M., 1955.
- Parley M. Pratt** ..... Associate Professor of Business Management (1960)  
B.A., University of Utah, 1950; M.B.A., Harvard Graduate School of Business, 1954; Ph.D., Ohio State University, 1960.
- Victor W. Purdy** ..... Instructor in Library Science (1954)  
B.S., Brigham Young University, 1952; M.S., Columbia University, 1957.
- Ellis T. Rasmussen** ..... Assistant Professor of Religious Instruction (1951)  
B.S., M.A., Brigham Young University, 1942, 1951.
- \*Lynn A. Ravsten** ..... Instructor in Psychology (1957)  
B.S., Brigham Young University, 1953; M.A., Stanford University, 1956.
- Edwin A. Read** ..... Director of Laboratory Schools; Associate Professor of Education (1959)  
B.Ed., M.Ed., University of Alberta, 1948, 1949; Ed.D., University of Oregon, 1956.
- Susan E. Ream** ..... Instructor in English (1961)  
B.A., Brigham Young University, 1953; M.A., Columbia Teachers College, 1958.
- Captain Garland L. Reasor** ..... Assistant Professor of Air Science (1959)
- Jesse W. Reeder** ..... Associate Professor of History and Political Science (1952)  
B.S., M.S., Utah State University, 1934, 1937; Ph.D., Cornell University, 1952.
- Howard T. Reid** ..... Professor of Personnel and Guidance; Chairman, Skills Improvement Service (1953)  
B.A., Brigham Young University, 1940; M.S., Ed.D., University of Southern California, 1947, 1949.
- Ernest F. Reimschuessel** ..... Assistant Professor of Horticulture and Horticultural Specialties (1942)  
B.A., M.S., Brigham Young University, 1940, 1951.
- Owen S. Rich** ..... Assistant Professor of Radio Speech (1950)  
B.S., Brigham Young University, 1950; M.A., University of Southern California, 1953.

- Russell R. Rich** ..... Professor of Religious Instruction (1953)  
B.S., Utah State University, 1936; M.A., Brigham Young University, 1949; Ed.D., University of Wyoming, 1955.
- Grant S. Richards** ..... Associate Professor of Animal Husbandry (1945)  
B.S., M.S., Utah State University, 1940, 1942.
- Jed J. Richardson** ..... Assistant Professor of Speech (1955)  
B.S., M.S., Utah State University, 1950, 1955.
- Eldin Ricks** ..... Assistant Professor of Religion (1949)  
B.S., Brigham Young University, 1941; M.A., University of Southern California, 1949.
- Chauncey C. Riddle** ..... Associate Professor of Philosophy (1952)  
B.S., Brigham Young University, 1947; M.A., Columbia University, 1951; Ph.D., Columbia University, 1958.
- Ted E. Ridenhour** ..... Instructor in English (1959)  
B.A., M.A., Brigham Young University, 1957, 1960.
- Gloria M. Rigby** ..... Special Instructor in Physical Education for Women (1961)  
B.S., University of Utah, 1961.
- J. Keith Rigby** ..... Associate Professor of Geology (1953)  
B.S., M.S., Brigham Young University, 1948, 1949; Ph.D., Columbia University, 1952.
- Burton W. Robinson** ..... Professor of Clinical Psychology (1955)  
B.S., M.S., Utah State University, 1951; Ph.D., Purdue University, 1954.
- Donald W. Robinson** ..... Associate Professor of Mathematics (1956)  
B.S., M.A., University of Utah, 1948, 1952; Ph.D., Case Institute of Technology, 1956.
- Clarence F. Robison** ..... Assistant Professor of Physical and Health Education; Head Track Coach (1948)  
B.S., Brigham Young University, 1949; M.S., University of Michigan, 1954.
- R. Max Rogers** ..... Professor of Modern Languages (1945)  
B.A., M.A., Brigham Young University, 1940, 1942; Ph.D., Stanford University, 1951.
- Carl W. Rollins** ..... Instructor in Physical Education (1959)  
B.S., M.S., University of Wyoming, 1949, 1950.
- Ralph L. Rollins** ..... Associate Professor of Civil Engineering (1956)  
B.S., M.S., Utah State University, 1941, 1949; Ph.D., Iowa State College, 1954.
- Antone K. Romney** ..... Professor of Educational Psychology; Dean of Education (1945)  
B.S., M.S., Brigham Young University, 1933, 1934; Ed.D., Stanford University, 1947.
- Richard D. Sagers** ..... Assistant Professor of Bacteriology (1958)  
B.S., M.S., Brigham Young University, 1954, 1955; Ph.D., University of Illinois, 1958.
- Clyde D. Sandgren** ..... Vice-President and General Counsel; Professor of Business Law  
B.S., Brigham Young University, 1937; LL.B., St. John's University, 1939.
- Lawrence W. Sardoni** ..... Professor of Music (1945)  
B.A., M.A., Brigham Young University, 1935, 1946.
- Donald T. Schmidt** ..... Instructor in Library Science (1959)  
B.A., M.A., State University of Iowa, 1947, 1949.
- Kay Gee Seely** ..... Assistant Professor of Languages (1961)  
B.A., M.A., Brigham Young University, 1956, 1957.
- Sterling D. Sessions** ..... Assistant Professor of Business Management (1961)  
B.A., Brigham Young University, 1949; M.A., New York University, 1950.
- Don D. Shaw** ..... Special Instructor in Health Education (1959)  
B.A., Brigham Young University, 1957.
- Merlin J. Shaw** ..... Assistant Professor of Religion (1959)  
B.A., M.A., University of Utah, 1938, 1946; Ed.D., University of California at Berkeley, 1960.

- Sherman B. Sheffield** ..... Instructor in History (1957)  
B.S., Brigham Young University, 1952; M.S., University of Southern California, 1954.
- Morris A. Shirts** ..... Assistant Professor of Education (1952)  
B.A., M.A., Brigham Young University, 1947, 1950; Ed.D., Indiana University, 1952.
- R. Phil Shumway** ..... Associate Professor of Animal Husbandry (1949)  
B.S., Utah State University, 1947; M.S., University of Minnesota, 1949; Ph.D., Utah State University, 1959.
- Elbert R. Simmons** ..... Instructor in Zoology and Entomology (1956)  
B.S., Utah State University, 1941; M.A., State University of Iowa, 1943.
- John M. Simonsen** ..... Professor of Mechanical Engineering (1954)  
B.S.M.E., University of Utah, 1950; M.S.M.E., Ph.D., Purdue University, 1952, 1955.
- Karl M. Skousen** ..... Instructor in Accounting (1958)  
B.S., M.S., Brigham Young University, 1944, 1957; C.P.A., Utah, 1957.
- Arthur D. Slater** ..... Assistant Professor of Personnel and Guidance (1956)  
B.S., Brigham Young University, 1948; M.S.W., Tulane University, 1950.
- Lyman F. Smart** ..... Assistant Professor of English (1953)  
B.A., Idaho State College, 1950; M.A., University of New Mexico, 1952.
- Carol T. Smith** ..... Instructor in Library Science (1949)  
B.A., Brigham Young University, 1940.
- Jay M. Smith, Jr.** ..... Assistant Professor of Accounting (1957)  
B.S., M.S., Brigham Young University, 1953, 1960; C.P.A., 1953.
- Kay H. Smith** ..... Assistant Professor of Psychology (1961)  
B.A., M.A., Brigham Young University, 1957, 1958; Ph.D., Wayne State University, 1962.
- Oliver R. Smith** ..... Professor of Journalism (1938)  
B.A., Brigham Young University, 1938; Ph.D., State University of Iowa, 1951.
- Robert J. Smith** ..... Professor of Accounting (1949)  
B.S., Brigham Young University, 1948; M.B.A., Northwestern University, 1949; C.P.A., Illinois, 1949; C.P.A., Utah, 1950, D.B.A., Indiana University, 1957.
- Ruth S. Smith** ..... Instructor in Speech (1960)  
B.S., University of Utah, 1952; M.A., University of Hawaii, 1955.
- Wilford E. Smith** ..... Professor of Sociology (1948)  
B.A., University of Utah, 1943; M.A., Brigham Young University, 1948; Ph.D., University of Washington, 1952.
- Rulon N. Smithson** ..... Instructor in Modern Languages (1955)  
B.A., M.A., Brigham Young University, 1954, 1955.
- L. Douglas Smoot** ..... Assistant Professor of Chemical Engineering (1960)  
B.S., Brigham Young University, 1957; M.S., Ph.D., University of Washington, 1958, 1960.
- Richard L. Snow** ..... Assistant Professor of Chemistry (1957)  
B.S., Ph.D., University of Utah, 1953, 1957.
- H. Wayne Soffe** ..... Assistant Professor of Physical Education (1938)  
B.S., M.S., Brigham Young University, 1938, 1941; D.P.E., Indiana University, 1955.
- Emory O. Sonderegger** ..... Instructor in Accounting (1960)  
B.S., M.S., Brigham Young University, 1956, 1957.
- John L. Sorenson** ..... Assistant Professor of Anthropology and Sociology (1958)  
B.S., M.A., Brigham Young University, 1951, 1952; M.S., California Institute of Technology, 1952; Ph.D., University of California, Los Angeles, 1961.
- Helen D. Sovine** ..... Instructor in Food and Nutrition (1957)  
B.S., Brigham Young University, 1951.
- Irene Osmond Spears** ..... Associate Professor of English (1936)  
B.A., Brigham Young University, 1929; M.A., Ph.D., Stanford University, 1934, 1942.
- George Albert Spencer** ..... Instructor in Electrical Technology (1958)  
B.S., University of Utah, 1939.

- Sidney B. Sperry** ..... Professor of Old Testament Languages and Literature (1932)  
B.A., University of Utah, 1917; M.A., Ph.D., University of Chicago, 1926, 1931.
- Stephen S. Stanford** ..... Associate Professor of Housing and Home Management (1959)  
B.S., M.S., Brigham Young University, 1950, 1951; Ph.D., University of Colorado, 1959.
- Helen T. Stevensen** ..... Instructor in Nursing (1957)  
Diploma, Johns Hopkins Hospital, Baltimore, Maryland, 1947; B.S., University of Utah, 1957.
- Grace Nixon Stewart** ..... Instructor in Speech (1960)  
B.S., Brigham Young University, 1925; M.A., Columbia University, 1940.
- Dee Leon Storrs** ..... Instructor in Library Science (1957)  
B.S., Brigham Young University, 1953; M.S., University of Washington, 1957.
- Robert E. Struthers** ..... Assistant Professor of Speech and Dramatic Arts (1953)  
B.S., Utah State University, 1949; M.S., Brigham Young University, 1953.
- Howard S. Stutz** ..... Associate Professor of Botany (1953)  
B.S., M.S., Brigham Young University, 1940, 1951; Ph.D., University of California (Berkeley), 1956.
- Albert D. Swensen** ..... Professor of Chemistry (1947)  
B.A., M.A., Brigham Young University, 1937, 1938; Ph.D., Louisiana State University, 1941.
- Russel B. Swensen** ..... Professor of History (1933)  
B.A., Brigham Young University, 1926; M.A., Ph.D., University of Chicago, 1931, 1934.
- Joseph N. Symons** ..... Professor of Sociology (1953)  
B.S., M.S., Utah State University, 1927, 1932; Ph.D., University of Chicago, 1944.
- Fred Y. Takasaki** ..... Instructor in Art (1961)  
B.A., M.A., Brigham Young University, 1953, 1958.
- Orea B. Tanner** ..... Associate Professor of English (1938)  
B.A., Brigham Young University, 1932; M.A., Columbia University, 1953.
- Vasco M. Tanner** ..... Professor of Zoology and Entomology (1925)  
B.A., Brigham Young University, 1915; M.A., University of Utah, 1920; Ph.D., Stanford University, 1925.
- Wilmer W. Tanner** ..... Associate Professor of Zoology and Entomology (1949)  
B.S., M.A., Brigham Young University, 1936, 1937; Ph.D., University of Kansas, 1949.
- Norman Tarbox** ..... Assistant Professor of Speech and Radio and TV Production (1960)  
B.S., University of Utah, 1955; M.S., Syracuse University, 1956.
- Charles D. Tate, Jr.** ..... Instructor in English (1960)  
B.S., M.S., Utah State University, 1954, 1958.
- Celestia J. Taylor** ..... Instructor in English (1959)  
B.A., M.A., Brigham Young University, 1925, 1953.
- Charles Taylor** ..... Associate Professor of Psychology (1954)  
B.Mus., A.B., Ph.D., Syracuse University, 1940, 1948, 1954.
- Ethelyn Peterson Taylor** ..... Assistant Professor of Business Education and Office Management (1946)  
B.S., Brigham Young University, 1937; M.A., Stanford University, 1949.
- H. Darrel Taylor** ..... Professor of Modern Languages (1948)  
B.A., M.A., University of Arizona, 1947, 1948; Ph.D., University of Illinois, 1956.
- Harvey L. Taylor** ..... Vice-President; Professor of Educational Administration (1954)  
B.S., University of Utah, 1921; M.A., Columbia University, 1925; LL.D., Arizona State College, 1956.
- John H. Taylor** ..... Instructor in Business Management (1961)  
B.S., Brigham Young University, 1960; M.B.A., University of Denver, 1961.

- Josephine C. Taylor** ..... Instructor in Library Science (1960)  
B.A., Brigham Young University, 1959; M.A., University of Southern California, 1960.
- L. John Taylor** ..... Instructor in English (1961)  
B.S., University of Utah, 1958; M.A., Brigham Young University, 1960.
- Weldon J. Taylor** ..... Professor of Marketing; Dean, College of Business (1937)  
B.S., Brigham Young University, 1934; M.B.A., Harvard Graduate School of Business Administration, 1937; Ph.D., Graduate School of Business Administration, New York University, 1955.
- Lloyd Taysom** ..... Special Instructor in Languages (1961)  
B.A., Brigham Young University, 1957.
- Elvis B. Terry** ..... Assistant Professor of Music (1957)  
B.S., M.S., Brigham Young University, 1933, 1950.
- J. Kenneth Thatcher** ..... Instructor in Educational Administration (1956)  
B.S., University of Utah, 1925; M.Ed., University of Idaho, 1936.
- Douglas H. Thayer** ..... Instructor in English (1957)  
B.A., Brigham Young University, 1955; M.A., Stanford University, 1959.
- Robert K. Thomas** ..... Assistant Professor of English and  
Director of Honors Program (1951)  
B.A., Reed College, 1947; M.A., University of Oregon, 1949.
- Woodruff C. Thomson** ..... Assistant Professor of English (1950)  
B.A., M.A., University of Utah, 1938, 1949.
- Lucile Markham Thorne** ..... Instructor in Library Science (1950)  
B.A., M.Ed., Brigham Young University, 1929, 1956; M.S., University of Southern California, 1958.
- Frank M. Tippetts** ..... Instructor in Civil Engineering (1958)  
B.A., Brigham Young University, 1953.
- Wilford J. Tolman** ..... Special Instructor in Industrial Education (1961)  
B.S., Brigham Young University, 1960.
- Jack B. Trunnell** ..... Professor of Developmental Biology; Director of  
Nutritional Research (1958)  
B.A., Brigham Young University, 1942; M.D., University of Utah, 1945.
- Karl L. Tucker** ..... Instructor in Physical Education for Men (1961)  
B.S., Brigham Young University, 1952.
- Glen C. Tuckett** ..... Assistant Professor of Athletics (1959)  
B.S., University of Utah, 1953.
- Glen H. Turner** ..... Associate Professor of Art (1947)  
B.S., M.A., Brigham Young University, 1940, 1948; Art Students League, Claremont College.
- Rodney Turner** ..... Assistant Professor of Religion (1956)  
B.A., M.A., Brigham Young University, 1949, 1953; Ed.D., University of Southern California, 1960.
- L. Elliott Tuttle** ..... Assistant Professor of Geography (1936)  
B.S., M.S., Brigham Young University, 1938, 1948.
- S. Lyman Tyler** ..... Professor of History; Director of Libraries (1952)  
B.S., Ph.D., University of Utah, 1949, 1951.
- Clarence Tyndall** ..... Assistant Professor of Education (1946)  
B.S., Brigham Young University, 1941; M.A., Stanford University, 1952.
- Otella W. Tyndall** ..... Special Instructor in Human Development  
and Family Relationships (1959)  
B.S., Brigham Young University, 1956.
- Howard F. Uibel** ..... Instructor in Physical Education for Men (1961)  
B.S., Brigham Young University, 1960.
- Richard D. Ulrich** ..... Associate Professor of Mechanical Engineering (1960)  
B.S., M.S., Ph.D., Purdue University, 1954, 1955, 1959.

- Quentin E. Utley** ..... Assistant Professor of Education (1957)  
B.S., Brigham Young University, 1940; Ph.D., University of Utah, 1960.
- Lee B. Valentine** ..... Associate Professor of Modern Languages (1939)  
B.A., M.A., Brigham Young University, 1939, 1948; Ph.D., Stanford University, 1958.
- John W. Van Cott** ..... Instructor in Botany (1959)  
B.A., Utah State University, 1941.
- Howard B. Vanfleet** ..... Assistant Professor of Physics (1960)  
B.S., Brigham Young University, 1955; Ph.D., University of Washington, 1961.
- Glenn M. Vernon** ..... Associate Professor of Sociology (1959)  
B.S., M.S., Brigham Young University, 1947, 1950; Ph.D., Washington State University, 1953.
- J. Homer Wakefield** ..... Assistant Professor of Music (1949)  
B.S., M.S., M.A., Brigham Young University, 1924, 1933, 1950.
- Rudger H. Walker** ..... Professor of Agronomy; Dean of the College of  
Biological and Agricultural Sciences (1960)  
B.S., Brigham Young University, 1923; M.S., Ph.D., Iowa State University, 1925,  
1927.
- Lulu Wallace** ..... Instructor in Physical Education (1956)  
B.S., Utah State University, 1954; M.S., Washington State University, 1960.
- Charles Y. Warner** ..... Instructor in Mechanical Engineering (1961)  
B.S., Brigham Young University, 1957.
- Sherman E. Warner** ..... Instructor in Business Education and Office  
Management (1961)  
B.S., M.S., Brigham Young University, 1960.
- Max LeRoy Waters** ..... Instructor in Business Education and  
Office Management (1958)  
B.A., M.A., Brigham Young University, 1958, 1960.
- Jean Anne Waterstradt** ..... Assistant Professor of English (1945)  
B.A., Brigham Young University, 1945; M.A., University of Southern California,  
1955.
- Arthur R. Watkins** ..... Professor of Modern Languages (1952)  
B.A., M.A., Brigham Young University, 1941, 1942; Ph.D., Stanford University, 1948.
- Ray Watters** ..... Associate Professor of Health and Physical Education (1957)  
B.S., M.S., Utah State University, 1948, 1950; H.S.D., University of Indiana, 1960.
- Stanley H. Watts** ..... Associate Professor of Physical Education;  
Head Basketball Coach (1947)  
B.S., Brigham Young University, 1938.
- Max D. Weaver** ..... Associate Professor of Art (1961)  
B.S., M.A., Utah State University, 1939, 1955.
- Ross M. Weaver** ..... Assistant Professor of Speech and Dramatic Arts (1959)  
B.S., M.S., Utah State University, 1950, 1951.
- Kurt Weinzinger** ..... Instructor in Music (1956)  
Music Diplomas, Academy of Music and Arts, Vienna, Austria, 1951, 1953.
- Stanley L. Welsh** ..... Assistant Professor of Botany (1960)  
B.S., M.S., Brigham Young University, 1951, 1957; Ph.D., Iowa State University,  
1960.
- Dale H. West** ..... Assistant Professor of English (1947)  
B.A., Brigham Young University, 1940; M.A., University of Southern California,  
1955.
- Harold F. Western** ..... Assistant Professor of Accounting (1958)  
B.S., M.S., Brigham Young University, 1954, 1960; C.P.A., Utah, 1959.
- Fred G. White** ..... Assistant Professor of Chemistry (1961)  
B.S., M.S., Brigham Young University, 1952, 1956; Ph.D., University of California,  
1961.

- J. Morgan White** ..... Assistant Professor of Accounting (1953)  
B.S., M.S., Brigham Young University, 1951, 1958; C.P.A., Utah, 1953.
- Clint C. Whitfield** ..... Instructor in Physical Education for Men (1961)  
B.S., University of California at Los Angeles, 1959.
- Harry E. Wickes** ..... Instructor in Mathematics (1957)  
B.S., M.Ed., Brigham Young University, 1950, 1954.
- Ray T. Wilcox** ..... Assistant Professor of Education (1957)  
B.S., M.Ed., Brigham Young University, 1951, 1954; Ed.D., University of California (Berkeley), 1957.
- Doran F. Wilkes** ..... Instructor in Civil Engineering (1958)  
B.S., M.S., Utah State University, 1951, 1955.
- Ernest J. Wilkins** ..... Professor of Modern Languages (1953)  
B.A., Brigham Young University, 1947; M.A., Ph.D., Stanford University, 1949, 1954.
- Ernest L. Wilkinson** ..... President of the University  
B.A., Brigham Young University, 1921; LL.B., George Washington University, 1926;  
S.J.D., Harvard University, 1927; LL.D., Brigham Young University, 1957.
- Milton G. Wille** ..... Assistant Professor of Mechanical Engineering (1958)  
B.E.S., Brigham Young University, 1957; M.S.M.E., California Institute of Technology, 1958.
- J. Kenneth Williams** ..... Coordinator of the Teacher Certification Office;  
Instructor in Education (1956)  
B.S., Brigham Young University, 1948.
- Tess M. Williams** ..... Assistant Professor of Speech (1960)  
B.S., Oregon State College, 1951; M.S., Iowa State College, 1956.
- Annette Wilson** ..... Instructor in Nursing (1956)  
Diploma, Thomas D. Dee Memorial Hospital, Ogden, Utah, 1951; B.S., University of Utah, 1954.
- Arnold Wilson** ..... Instructor in Civil Engineering (1957)  
B.S., Brigham Young University, 1957.
- Marguerite L. Wilson** .... Assistant Professor of Educational Psychology (1956)  
B.S., University of Utah, 1948; M.A., San Francisco State College, 1955.
- Warren B. Wilson** ..... Associate Professor of Art and Education (1954)  
B.S., Utah State University, 1943; M.F.A., State University of Iowa, 1949.
- William A. Wilson** ..... Special Instructor in English (1960)  
B.A., Brigham Young University, 1958.
- John H. Wing** ..... Assistant Professor of Chemistry (1931)  
B.S., M.S., Brigham Young University, 1926, 1934.
- Richard B. Wirthlin** ..... Assistant Professor of Economics (1961)  
B.S., M.A., University of Utah, 1956, 1957.
- Alan R. Witbeck** ..... Instructor in Physical Education (1955)  
B.S., M.S., Brigham Young University, 1952, 1954.
- Glena D. Wood** ..... Assistant Professor of English (1952)  
B.A., Brigham Young University, 1936; M.A., Ph.D., University of Kentucky, 1949, 1958.
- Stephen L. Wood** ..... Assistant Professor of Zoology and Entomology (1956)  
B.S., M.S., Utah State University, 1946, 1948; Ph.D., University of Kansas, 1953.
- Richard C. Woodbury** ..... Assistant Professor of Electrical Engineering (1959)  
B.S., University of Utah, 1956; M.S., Stanford University, 1958.
- Leon W. Woodfield** ..... Instructor in Accounting (1960)  
B.S., M.B.A., University of Utah, 1956, 1957; C.P.A., California, 1959, Utah, 1960.
- Ralph Woodward** ..... Assistant Professor of Music (1955)  
B.S., University of Idaho, 1940; M.M., Cincinnati Conservatory of Music, 1948.

- Golden L. Woolf** ..... Professor of Educational Administration (1934)  
B.A., M.A., Brigham Young University, 1934, 1936; Ed.D., University of California, 1940.
- H. Curtis Wright** ..... Instructor in Library Science (1959)  
B.A., M.A., Brigham Young University, 1954, 1955; M.S., University of Southern California, 1959.
- David H. Yarn, Jr.** ..... Professor of Theology and Philosophy;  
Dean of the College of Religious Instruction (1950)  
B.S., Brigham Young University, 1946; M.A., Ed.D., Columbia University, 1949, 1958.
- Karl E. Young** ..... Professor of English (1930)  
B.A., M.A., Oxford University (England), 1930, 1934.

(Names of faculty members on leave are marked with asterisks (\*) in the departmental faculty listings.)

### SPECIAL INSTRUCTORS OR LECTURERS

#### General Authorities of the Church of Jesus Christ of Latter-day Saints

- Phyllis Allen, B.A., Special Instructor of Housing and Home Management
- Minnie Barlow, B.S., M.A., Special Instructor of Housing and Home Management
- Florence Beck, B.A., Consultant Instructor in Family Living
- Archibald F. Bennett, M.A., Special Instructor in Religion
- Jacob Bos, Special Instructor in Music
- Rulon Brough, Special Instructor in Machine Accounting
- Adine Bradley, Special Instructor in Music
- Theodore Burton, Special Professor of Religious Instruction
- Merrill Bushnell, M.B.A., Special Instructor in Industrial Management
- Richard A. Call, M.D., Special Instructor in Bacteriology
- J. H. Carlquist, M.D., Special Instructor in Bacteriology
- Lathair H. Curtis, B.A., Special Instructor in Journalism
- George W. Fitzroy, Special Instructor in Piano
- David Freed, B.S., Special Instructor in Music
- Barclay Gardner, M.S., Special Instructor in Economics
- Paul Harmon, M.S., Special Instructor in Marketing
- Ronda H. Jenkins, B.S., Special Instructor in Journalism
- Lucile N. Jensen, B.S., Special Instructor in Human Development and Family Relationships
- Phil D. Jensen, B.S., C.L.U., Special Instructor in Insurance
- Francis W. Kirkham, B.A., LL.B., Ph.D., Special Instructor in Religion
- Lee Knell, B.S., B. Arch., Special Instructor in Art
- W. H. Le Cheminant, M.D., Special Instructor in Bacteriology
- Jennings M. Lee, B.S., Special Instructor in Psychology
- Theron C. Liddle, Lecturer in Journalism
- Arminta Mathews, B.S., Special Instructor in Music
- Elmer E. Nelson, Special Instructor in Piano
- Joseph E. Nelson, B.S., LL.B., Special Instructor in Business Law
- Richard Nibley, B.S., Special Instructor in Music
- Kenneth Pace, B.S., Special Instructor in Marketing
- Ford Paulson, Special Instructor in Agricultural Economics
- O. Preston Robinson, B.A., M.S., D.C.S., Lecturer in Journalism
- William B. Smart, B.A., Lecturer in Journalism
- Lynn Taylor, B.A., Special Instructor in Art and Housing and Home Management
- Richard M. Taylor, B.S., LL.B., Special Instructor in Business Law
- Irene Thomson, B.S., Special Instructor in Housing and Home Management
- Leo P. Vernon, B.A., Ph.D., Special Lecturer in Chemistry

Ross Viehweg, B.S., Special Instructor in Housing and Home Management  
 Josie Vincent, B.A., Special Instructor in Housing and Home Management  
 Helen W. Wakefield, B.S., Consultant Instructor in Family Living  
 Kay Williams, M.B.A., Special Instructor in Economics  
 Margaret Woodward, B.A., Special Instructor in Music

#### EXTENSION SERVICES — SPECIAL INSTRUCTORS

Alden R. Adams, B.S., M.S., Special Instructor in Engineering  
 Marguerite H. Allen, B.A., Special Instructor in Horticulture and Languages  
 Merle E. Allen, B.S., H.S., M.S., Ed.D., Special Instructor in Educational Administration, Educational Research and Services  
 R. Clay Allred, B.S., Special Instructor in Family Living  
 Philip E. Allsen, B.S., M.S., Special Instructor in Health Education and Physical Education  
 A. K. Anastasion, Sr., Special Instructor in Languages  
 J. Moyle Anderson, B.S., M.S., A.S., Special Instructor in Political Science, Business Management  
 John B. Anderson, B.S., LL.B., Special Instructor in Political Science  
 Karl E. Anderson, Special Instructor in Languages  
 Wilson K. Anderson, M.S., M.Ed., Special Instructor in Religion, Human Development and Family Relationships  
 Rex Richard Ashdown, B.S., M.S., M.S.W., Special Instructor in Sociology  
 Mark Ballif, B.S., Special Instructor in Athletics  
 Berry F. Banks, Special Instructor in Journalism  
 Leo Holmes Barlow, LL.B., B.S., Special Instructor in Business Management  
 Donald J. Barney, A.S., Special Instructor in Accounting  
 B. H. Barrus, B.S., M.Ed., Special Instructor in Religion  
 Wallace W. Bates, Special Instructor in Recreation  
 John E. Bean, B.S., M.Ed., Ed.D., Special Instructor in Instruction  
 Glenn Johnson Beeley, B.A., Special Instructor in Weaving  
 Hugh C. Bennion, B.S., M.S., Ed.D., Special Instructor in Educational Research and Services  
 Boyd Benson, A.B., M.S., Special Instructor in Mathematics  
 Mark A. Benson, B.S., M.S., Special Instructor in Business Management  
 Lyman C. Berrett, B.S., M.S., Special Instructor in Religion, Family Living  
 Ruth H. Biddulph, B.A., M.S., Special Instructor in Instruction  
 Richard R. Boyle, B.S., LL.B., Special Instructor in Accounting  
 Leslie J. Boothe, B.S., M.S., Special Instructor in Religion  
 George T. Boyd, B.S., M.A., Special Instructor in Religion  
 Billings Brown, B.S., M.S., Ph.D., Special Instructor in Physics  
 Albert W. Burton, B.S., Special Instructor in Industrial Education  
 Virginia C. Bryner, B.A., Special Instructor in Languages  
 Lee R. Cain, B.S., M.S., Special Instructor in Instruction  
 Russell Carruth, B.S., M.S., Special Instructor in Educational Administration  
 Jay W. Casper, B.A., M.Ed., Special Instructor in Psychology  
 W. Henry Chace, Special Instructor in Genealogy  
 Ernest M. Chamberlain, B.S., Special Instructor in Accounting  
 Henry E. Christiansen, Special Instructor in Genealogy  
 Owen Clark, B.A., Special Instructor in Recreation  
 Owen M. Clark, B.A., M.S., Special Instructor in Economics  
 Pearson Harris Corbett, B.S., M.S., Special Instructor in Religion  
 J. Spencer Cornwall, Special Instructor in Music

- Eldon R. Cox, B.S., M.B.A., Special Instructor in Business Management  
 Molly Ann Cragun, B.S., Special Instructor in Recreation  
 Bliss Crandall, B.S., M.S., Special Instructor in Statistics  
 LeRoy R. Critchfield, B.S., M.B.A., Special Instructor in Business Management  
 William J. Critchlow, III, LL.B., Special Instructor in Political Science, Business  
 Management  
 Duane S. Crowther, B.A., M.A., Special Instructor in Religion  
 Clara Crusier, Special Instructor in Genealogy  
 Bess M. D'Arc, Special Instructor in Family Relations  
 Paul H. Dunn, B.S., M.S., Ed.D., Special Instructor in Family Living, Instruction  
 Jefferson Eastmond, B.S., M.Ed., Ed.D., Special Instructor in Educational Ad-  
 ministration  
 David E. Ellis, B.F.A., B.A., B.S., M.Ed., Special Instructor in Health Education  
 Royal William Gelder, B.S., Special Instructor in Business Management  
 Kenneth W. Godfrey, B.S., M.S., Special Instructor in Religion  
 Harold F. Greene, B.S., E.E., C.L.U., Special Instructor in Family Relations  
 Robert Haldin, B.S., M.S. Ph.D., Special Instructor in Mathematics  
 Stephen P. Hale, B.S., Special Instructor in Journalism  
 Orval H. Hansen, B.A., Special Instructor in Political Science  
 C. Derek Harland, Special Instructor in Religion and Genealogy  
 Mabel S. Harmer, B.S., Special Instructor in Journalism  
 William E. Hartman, B.A., M.A., Ph.D., Special Instructor in Family Living  
 Carolyn Haws, Special Instructor in Genealogy  
 Daniel S. Hess, B.S., M.S., Ed.D., Special Instructor in Educational Administra-  
 tion, Educational Research and Services, Instruction  
 Chester W. Hill, B.S., Ed.D., Special Instructor in Music  
 Mrs. Daryl VanDam Hoole, B.S., Special Instructor in Family Living  
 Ione Horrocks, B.A., Special Instructor in Skills Improvement  
 E. Virgil Howell, B.A., M.A., Ph.D., Special Instructor in Religion  
 Ivan Hromyk, M.S., Special Instructor in Languages  
 Donnell W. Hunter, B.A., M.S., Special Instructor in English  
 Marjorie Jackson, B.S., Special Instructor in Speech  
 LaVerd John, B.S., M.S., Ed.D., Special Instructor in Psychology, Educational  
 Administration, Educational Research and Services  
 Wallace Johnson, B.A., M.A., Special Instructor in Religion  
 Stanley Dean Jones, B.A., Special Instructor in Industrial Education  
 Vincent L. Jones, Special Instructor in Genealogy  
 Charles Josie, B.A., Special Instructor in Languages  
 Arthur C. Judd, B.S., M.S., Ed.D., Special Instructor in Educational Adminis-  
 tration  
 Odell Julander, B.S., M.S., Ph.D., Special Instructor in Botany  
 Thomas Kershaw, B.A., Special Instructor in Instruction  
 Clair T. Kilts, B.A., M.A., Special Instructor in History  
 James L. Kirschbaum, B.S., M.S., Special Instructor in Business Management  
 Hubert C. Lambert, B.S., M.S., Special Instructor in Genealogy  
 John M. Landward, B.S., Ph.D., Special Instructor in Psychology  
 David Andrew Law, B.A., Special Instructor in Political Science  
 Robert L. Leake, B.S., M.S., Special Instructor in Health Education  
 Dale LeCheminant, B.A., Special Instructor in English  
 Jennings M. Lee, B.S., M.S., Special Instructor in Psychology  
 Delbert W. Lindsay, B.S., M.S., Ph.D., Special Instructor in Zoology  
 William F. Lye, B.S., M.A., Special Instructor in Religion, History, Political  
 Science

- George J. Maack, Jr., B.A., M.A., Special Instructor in Art
- Ellis S. McAllister, B.S., M.S., Ph.D., Special Instructor in Sociology, Educational Administration, Educational Research and Services
- Ralph L. McBride, B.S., M.A., Special Instructor in English
- Rulon S. McCarrey, B.S., M.S., Ph.D., Special Instructor in Sociology, Human Development and Family Relations
- Genevieve Lawrence Madsen, B.S., Special Instructor in Housing and Home Management
- Daniel L. Martino, B.S., M.A., Ph.D., Special Instructor in Music
- Olga K. Miller, Special Instructor in Languages
- Rulon Glen Miller, B.S., M.S., Special Instructor in Educational Administration
- Thomas A. Miller, B.S., M.S., Special Instructor in Mathematics
- Leland Monson, B.A., M.A., Ph.D., Special Instructor in Religion, English
- Kenneth Moosman, B.S., Special Instructor in Mathematics
- Lewis M. Mulkay, B.S., M.S., Special Instructor in Zoology
- Gordon L. Newby, B.S., Special Instructor in Industrial Drawing
- Alfred C. Nielsen, B.S., M.S., Special Instructor in Church Administration
- Harold K. Nielsen, B.S., M.A., Special Instructor in Physical Science
- Edward Y. Okazaki, B.A., M.S.W., Special Instructor in Family Living
- Douglas Orgill, A.B., M.A., Ph.D., Special Instructor in English
- John T. Orr, B.S., M.A., Special Instructor in Educational Administration
- David S. Ostler, B.A., M.B.A., Special Instructor in Business Management
- Berkley H. Parkinson, Special Instructor in Physical Education
- Harold R. Papworth, B.S., M.S., Special Instructor in Educational Administration
- H. Oliver Parson, B.S., M.A., Special Instructor in Art
- Mary Helen Parsons, B.S., Special Instructor in Family Living
- George E. Patterson, B.S., M.S., Special Instructor in Religion and Zoology
- Albert E. Payne, B.S., M.S., Special Instructor in Religion
- Lorentz Pearson, B.S., M.S., Ph.D., Special Instructor in Botany
- Betty J. Peterson, Special Instructor in Business Education
- Grant P. Peterson, B.S., Special Instructor in Horticulture
- Ira L. Peterson, A.B., M.S., Special Instructor in Zoology
- N. Marcus Peterson, B.S., M.S., Special Instructor in Statistics
- Eliabeth W. Price, B.S., M.S., Special Instructor in English
- Sterling S. Provost, B.S., M.S., Special Instructor in Speech
- T. Laine Raty, Special Instructor in Art
- Norman E. Ricks, Special Instructor in History
- Howard E. Salisbury, B.A., Ph.D., Special Instructor in Religion and English
- Boris A. Schiel, Special Instructor in Languages
- Dorothy Scott, B.S., M.A., Special Instructor in Human Development and Family Relationships
- Woodrow Scott, B.S., M.S., Ph.D., Special Instructor in Sociology, Human Development and Family Relationships
- Anna DeOgilvie Sherwood, B.A., M.A., Special Instructor in Clothing and Textiles
- Nitsa Silberstein, Special Instructor in Languages
- Norman L. Skanchy, B.S., Special Instructor in Instruction
- Frank Smith, Special Instructor in Genealogy
- Mary E. Smith, Special Instructor in Genealogy
- Neil R. Sorenson, B.A., M.A., Special Instructor in Physics
- Eldred C. Stephenson, B.S., M.S., Special Instructor in Business Education
- Elizabeth B. Stewart, B.A., M.A., Ph.D., Special Instructor in Psychology
- Ezra S. Stucki, B.S., M.S., Special Instructor in Educational Administration, Instruction

**J. Wendell Stucki**, B.S., M.S., Special Instructor in Botany  
**George F. Swenson**, B.S., M.S., Ph.D., Special Instructor in Speech  
**Virginia Swenson**, B.S., Special Instructor in Speech  
**Melvin S. Tagg**, B.Ed., M.S., Special Instructor in Religion  
**Carlisle Gray Tanner**, Special Instructor in Technical Institute  
**William C. Tanner**, B.S., M.A., Ph.D., Special Instructor in Family Relations  
**E. LaVoy Thomas**, B.A., M.A., Special Instructor in Sociology  
**Grant R. Thomas**, B.S., M.S., Special Instructor in Business Management  
**Fred H. Tingey**, B.S., M.S., Ph.D., Special Instructor in Statistics  
**John Tucker**, B.A., Ph.D., Special Instructor in Educational Administration,  
Instruction  
**Curtis N. Van Alfen**, B.S., Special Instructor in Educational Research and Services  
**Nicholas Van Alfen**, B.A., M.A., Special Instructor in Religion  
**Wayne H. Wadsworth**, B.S., J.D., Special Instructor in Political Science  
**Wilson C. Walker**, M.S., Special Instructor in Psychology  
**Thomas W. Ward, Jr.**, B.A., Special Instructor in Health Education  
**Vesta Ann Ward**, B.S., Special Instructor in Art  
**Lyle Watson**, B.S., Special Instructor in Speech and Dramatic Arts  
**Ellsworth E. Weaver**, B.S., J.S., Ph.D., Special Instructor in Political Science  
**Wendell Kay Williams**, B.S., M.B.A., Special Instructor in Statistics  
**Verlene Winkel**, B.S., Special Instructor in Physical Education  
**Ralph M. Wright**, B.S., M.S., Special Instructor in Business Management  
**C. Rex Yeaman**, B.S., M.A., Special Instructor in Mathematics  
**Orson W. Young**, B.A., M.A., Ph.D., Special Instructor in Zoology  
**John H. Zenger**, B.S., M.B.A., Special Instructor in Psychology, Human Relations

### THE STAFF OF THE LABORATORY SCHOOLS

**Edwin A. Read** ..... Director of Laboratory Schools (1959)  
**W. Dwayne Belt** ..... Assistant Director of Laboratory Schools for  
Operations (1961)  
**John K. Crnkovic** ..... Assistant Director of Laboratory Schools for  
Curriculum and Teaching (1957)

### The Elementary School

**Dale Harding** ..... Intermediate Grades and Elementary Methods (1960)  
M.S., Brigham Young University, 1961.  
**Marvin Nelson** ..... Intermediate Grades and Elementary Methods (1959)  
B.S., M.S., Brigham Young University, 1951, 1961.  
**Louise Olsen** ..... Primary Grades and Elementary Methods (1960)  
B.S., University of Utah, 1955.  
**Mima Rasband** ..... Primary Grades and Elementary Methods (1952)  
B.S., M.S., Brigham Young University, 1937, 1950.  
**Nita Richins** ..... Primary Grades and Elementary Methods (1961)  
B.S., Brigham Young University, 1955.  
**Carma Sandberg** ..... Librarian (1957)  
B.A., M.A., Brigham Young University, 1932, 1960.  
**June Searle** ..... Intermediate Grades and Elementary Methods (1961)  
B.S., Brigham Young University, 1958.

## The Secondary School

- Verl Allman** ..... Biological Sciences (1950)  
B.S., M.S., Brigham Young University, 1948, 1952.
- Garth Allred** ..... Foreign Languages and Typing (1959)  
B.A., M.A., Brigham Young University, 1950, 1958.
- Wallace Allred** ..... Mathematics (1956)  
B.S., M.Ed., Brigham Young University, 1956, 1957.
- \*Frank H. Arnold** ..... Physical Education and Mathematics (1958)  
B.S., Idaho State College, 1956; M.S., Brigham Young University, 1960.
- Grant D. Bendixsen** ..... Core-Curriculum (1954)  
B.S., M.S., Brigham Young University, 1949, 1953.
- J. Lynn Benson** ..... Speech (1960)  
B.S., Brigham Young University, 1951.
- June E. Berry** ..... Librarian (1948)  
B.S., Brigham Young University, 1947; M.S., University of Utah, 1952.
- Walter Bowen** ..... Religion (1961)  
B.S., M.S., Brigham Young University, 1957, 1958.
- Faye J. Buttle** ..... Core-Curriculum (1951)  
B.A., M.Ed., M.A., Brigham Young University, 1927, 1953, 1954.
- Julia A. Caine** ..... History, Social Studies (1941)  
B.S., Brigham Young University, 1925; M.A., Colorado State College of Education, 1950.
- Geraldine Critchley** ..... Physical Education and Health (1961)  
B.A., Idaho State College, 1961.
- Adelaide Fuhrman** ..... English (1960)  
B.S., Utah State University, 1956.
- Robert Gabbatis** ..... Languages, Mathematics (1961)  
B.A., Brigham Young University, 1961.
- Jed Gibson** ..... Physical Education and Health (1961)  
B.S., M.S., University of Utah, 1956, 1958.
- Anna B. Hart** ..... English (1939)  
B.S., Utah State University, 1922; M.A., University of Southern California, 1933;  
M.Ed., George Peabody College for Teachers, 1949.
- LeOra Hatton** ..... Home Economics (1960)  
B.S., Utah State University, 1958; M.S., Brigham Young University, 1959.
- Ross C. Hilton** ..... Industrial Arts (1957)  
B.S., Utah State University, 1951.
- Don L. McConkie** ..... Social Studies (1953)  
B.S., M.S., Brigham Young University, 1927, 1942.
- Ward Magleby** ..... Religion (1957)  
B.S., M.S., Utah State University, 1939, 1946.
- Wallace Montague** ..... Religion (1961)  
B.S., Brigham Young University, 1949.
- \*LeRoy Porter** ..... Counselor (1957)  
B.S., Brigham Young University, 1954.
- Sharon S. Stoddard** ..... Commercial Subjects (1960)  
B.S., Brigham Young University, 1958.
- Hal L. Taylor** ..... Religion (1960)  
B.S., Brigham Young University, 1951.
- Lowell D. Thomson** ..... Mathematics and Physical Science (1958)  
B.A., Humboldt State College, 1952; M.S., University of Utah, 1958.
- Donna Lee Turley** ..... Counselor (1959)  
B.S., Brigham Young University, 1953.
- Fredrick N. Webb** ..... Vocal Music (1948)  
B.A., M.A., Brigham Young University, 1933, 1954.
- June G. Whiteford** ..... English (1955)  
B.A., Michigan State Normal College, 1942; Certificate in Library Science, Gonzaga University, 1947; M.A., Brigham Young University, 1960.

**ENROLLMENT SUMMARY 1960-61**  
**PROVO, UTAH**  
**AS OF AUGUST 31, 1961**

College	Freshman	Sophomore	Junior	Senior	5th Year Professional	Graduate	Men	Women	Total
Biological and Agricultural Sciences ...	245	174	165	185			656	113	769
Business .....	320	300	390	372			1034	348	1382
Education .....	446	296	382	528			445	1207	1652
Family Living .....	293	195	216	141			15	830	845
Fine Arts .....	214	136	175	159			292	392	684
General College .....	1677	652	209	75			1414	1199	2613
Humanities and Social Sciences .....	438	342	354	383			861	656	1517
Nursing .....	92	47	32	29			1	199	200
Physical and Engineering Sciences ...	456	286	280	214	83		1276	43	1319
Physical Education .....	85	82	98	119			243	141	384
Graduate School .....						1588	1072	516	1588
Total Daytime College Students on Campus .....	4266	2510	2301	2205	83	1588	7309	5644	12953**
Evening College Students on Campus .....							536	604	1140
Net Cumulative Total College Level									14093
B.Y.U. LABORATORY SCHOOLS									
Elementary School .....							107	101	208
Junior High School .....							93	97	190
Senior High School .....							106	86	192
Total, B.Y.U. Laboratory Schools									590
TOTAL STUDENTS ON B.Y.U. CAMPUS									14683*

\*Complete for the school year 1960-61, including Summer School 1961.

\*\*Total enrollment for First and Second Semesters only was 11,555. Total Summer School enrollment was 3,223 of whom 1,398 attended Summer School only.

**BRIGHAM YOUNG UNIVERSITY 1960-61 CUMULATIVE FIRST AND SECOND  
SEMESTER AND SUMMER ENROLLMENT, REGULAR DAYTIME STUDENTS,  
PROVO CAMPUS, ACCORDING TO STATES AND FOREIGN AREAS  
AS OF AUGUST 31, 1961**

New England States		West South Central		Eastern South America	
Maine .....	10	Arkansas .....	9	Brazil .....	4
New Hampshire .....	13	Louisiana .....	13	Uruguay .....	1
Vermont .....	3	Oklahoma .....	18		5
Massachusetts .....	17	Texas .....	97		
Rhode Island .....	2				
Connecticut .....	17		137		
	62				
Middle Atlantic States		Mountain States		Northern Europe	
New York .....	99	Montana .....	173	Denmark .....	2
New Jersey .....	37	Idaho .....	1250	Finland .....	11
Pennsylvania .....	37	Wyoming .....	209	Norway .....	4
	173	Colorado .....	217	Sweden .....	1
		New Mexico .....	134		18
		Arizona .....	471		
		Utah .....	5293		
		Nevada .....	339		
			8,086		
East North Central		Pacific Coast States		British Isles	
Ohio .....	41	Alaska .....	18	England .....	6
Indiana .....	32	Hawaii .....	75		6
Illinois .....	90	Washington .....	366		
Michigan .....	56	Oregon .....	359		
Wisconsin .....	30	California .....	2355		
	249		3,173		
West North Central		Dominion of Canada		Western Europe	
Minnesota .....	23	Alberta .....	229	Belgium .....	1
Iowa .....	28	British Columbia .....	9	France .....	3
Missouri .....	40	Manitoba .....	3	Netherlands .....	3
North Dakota .....	8	Martime Prov. ....	3	Switzerland .....	3
South Dakota .....	15	Ontario .....	36		10
Nebraska .....	17	Quebec .....	7		
Kansas .....	24	Saskatchewan .....	5		
	155		292		
South Atlantic States		Central America and Mexico		Southern Europe	
Delaware .....	4	Canal Zone .....	2	Greece .....	5
Maryland .....	32	Costa Rica .....	2		5
Virginia .....	65	Guatemala .....	5		
Washington, D.C. ....	18	Mexico .....	54		
West Virginia .....	9		63		
North Carolina .....	50				
South Carolina .....	26				
Georgia .....	19				
Florida .....	67				
	290				
East South Central		Western South America and Andean Countries		North Africa	
Kentucky .....	6	Chile .....	1	Egypt .....	1
Tennessee .....	9	Peru .....	8		1
Alabama .....	10				
Mississippi .....	15				
	40		9		
				Eastern Mediterranean	
				Iran .....	26
				Israel .....	1
				Jordan .....	2
				Lebanon .....	4
				Turkey .....	1
					34
				Arabian Peninsula	
				Saudi Arabia .....	1
					1

<b>Southern Asia</b>		Japan .....	13	<b>Australia</b>	
India .....	18	Nationalist China .....	9	Australia .....	1
Pakistan .....	2	(Formosa) .....	6	New South Wales .....	1
	20	North Korea .....	6	Queensland .....	4
		South Korea .....	6		6
<b>Southeast Asia</b>			78	<b>Polynesia</b>	
North Vietnam .....	2	<b>East Africa</b>		New Zealand .....	14
	2	Ethiopia .....	3	Samoa Islands .....	4
<b>Indonesia</b>		Kenya .....	2	Tonga Islands .....	2
Indonesia .....	2		5		20
Java .....	1	<b>Union of South Africa</b>		<b>Melanesia</b>	
	3	Southwest Africa .....	2	(except New Guinea)	
<b>Far East</b>			2	Fiji Islands .....	1
Hong Kong .....	44				1

Recapitulation

<b>United States</b>	
New England States .....	62
Middle Atlantic States .....	173
East North Central States .....	249
West North Central States .....	155
South Atlantic States .....	290
East South Central States .....	40
West South Central States .....	137
Mountain States .....	8086
Pacific Coast States .....	3173
Other Anglo-America .....	292
Latin America .....	77
Europe .....	46
Middle East .....	36
Southern and Eastern Asia .....	103
Trans-Saharan Africa .....	7
Oceania .....	27
<b>GRAND TOTAL</b> .....	<b>12,953</b>

BRIGHAM YOUNG UNIVERSITY 1960-61 CUMULATIVE FIRST AND SECOND SEMESTER AND SUMMER ENROLLMENT, REGULAR DAYTIME STUDENTS FROM STAKES AND MISSIONS AS OF AUGUST 31, 1961

Alberta .....	54	Blaine .....	22	Cassia .....	24
Albuquerque .....	31	Boise .....	43	Cedar .....	21
Alpine .....	159	Bonneville .....	33	Cedar West .....	21
American Falls .....	16	Bountiful North .....	22	Cheyenne .....	22
American River .....	36	Bountiful South .....	28	Chicago .....	82
Ashley .....	51	Bountiful .....	28	Cincinnati .....	11
Atlanta .....	11	Box Elder .....	31	Clearfield .....	15
Auckland, etc. ....	7	B.Y.U. Campus .....	51	Columbia River .....	55
Bakersfield .....	40	B.Y.U. 2nd Campus ..	29	Cottonwood .....	34
Bannock .....	5	B.Y.U. 3rd Campus ...	41	Covina .....	31
Bear Lake .....	15	Burbank .....	83	Craig .....	11
Bear River .....	10	Burley .....	50	Dallas .....	14
Beaver .....	29	Butte .....	27	Davis .....	45
Ben Lomond .....	21	Cache .....	4	Denver .....	60
Ben Lomond South ...	7	Calgary .....	26	Denver West .....	28
Benson .....	7	Cannon .....	11	Deseret .....	57
Big Horn .....	73	Canyon Rim .....	28	Detroit .....	35
Blackfoot .....	35	Carbon .....	39	Duchesne .....	41

East Cache .....	9	Lehi .....	81	Orange .....	40
East Idaho Falls .....	18	Lethbridge .....	36	Orem .....	109
East Jordan .....	27	Lewiston .....	9	Orem West .....	118
East Long Beach .....	41	Liberty .....	9	Orlando .....	13
East Los Angeles .....	55	Logan .....	4	Palmyra .....	78
East Mesa .....	54	Long Beach .....	36	Palo Alto .....	63
East Mill Creek .....	27	Lorin Farr .....	28	Panguitch .....	30
East Ogden .....	38	Los Angeles .....	84	Park .....	14
East Phoenix .....	35	Lost River .....	16	Parley .....	17
East Pocatello .....	13	Lyman .....	30	Parowan .....	8
East Provo .....	271	Malad .....	32	Pasadena .....	97
East Rigby .....	23	Maricopa .....	35	Phoenix North .....	24
East Sharon .....	260	Melbourne .....	1	Phoenix .....	23
Edmonton .....	2	Mesa .....	57	Pikes Peak .....	1
El Paso .....	46	Midvale .....	39	Pioneer .....	6
Emery .....	37	Millard .....	42	Pocatello .....	12
Emigration .....	12	Millcreek .....	16	Portland .....	65
Ensign .....	32	Minidoka .....	27	Portneuf .....	20
Farr West .....	14	Minnesota .....	1	Provo .....	157
Flagstaff .....	30	Missoula .....	32	Puget Sound .....	30
Florida .....	23	Mojave .....	18	Raft River .....	15
Franklin .....	35	Moapa .....	39	Redding .....	1
Fresno .....	43	Monterey Bay .....	22	Redondo .....	40
Garfield .....	7	Montpelier .....	19	Reno .....	56
Glendale .....	81	Monument Park .....	18	Reseda .....	45
Gooding .....	48	Monument Park W. ....	10	Rexburg .....	37
Grand Coulee .....	57	Morgan .....	9	Richland .....	78
Grand Junction .....	29	Moroni .....	11	Rigby .....	29
Granger .....	6	Mt. Graham .....	41	Riverdale .....	9
Granger North .....	8	Mt. Jordan .....	38	Riverside .....	10
Granite .....	16	Mt. Logan .....	2	Riverton .....	17
Granite Park .....	14	Mt. Ogden .....	18	Roosevelt .....	40
Grant .....	21	Mt. Rubidoux .....	84	Rose Park .....	13
Grantsville .....	23	Murray .....	15	Sacramento .....	43
Great Falls .....	41	Murray South .....	27	St. George .....	19
Gridley .....	41	Nampa .....	83	St. George East .....	23
Gunnison .....	14	Napa .....	33	St. Johns .....	45
Hamilton .....	2	Nebo .....	104	St. Joseph .....	20
Hayward .....	68	Nevada .....	44	St. Louis .....	13
Highland .....	28	New Jersey .....	24	Salem .....	15
Hillside .....	22	New Orleans .....	10	Salmon River .....	8
Holladay .....	26	New York .....	29	Salt Lake .....	17
Honolulu .....	20	North Box Elder .....	22	San Antonio .....	8
Houston .....	21	North Carbon .....	28	San Bernardino .....	52
Humbolt .....	20	North Davis .....	13	San Diego .....	55
Huntington Park .....	66	North Idaho Falls .....	47	San Diego East .....	46
Hyrum .....	6	North Jordan .....	23	Sandy .....	39
Idaho .....	28	North Pocatello .....	17	San Fernando .....	54
Idaho Falls .....	47	North Rexburg .....	37	San Francisco .....	23
Indianapolis .....	8	North Sacramento .....	31	San Joaquin .....	38
Inglewood .....	56	North Sanpete .....	26	San Jose .....	19
Juab .....	55	North Seattle .....	48	San Juan .....	76
Juarez .....	37	North Sevier .....	17	San Luis .....	21
Kanab .....	29	North Tooele .....	27	San Luis Obispo .....	15
Kansas City .....	20	North Weber .....	15	San Mateo .....	49
Kearns North .....	4	Norwalk .....	14	Santa Ana .....	32
Kearns .....	6	Nyssa .....	50	Santa Barbara .....	25
Klamath .....	44	Oahu .....	26	Santa Monica .....	59
Kolob .....	119	Oakland-Berkeley .....	106	Santa Rosa .....	24
Lake Mead .....	41	Ogden .....	24	Santaquin Tintic .....	22
Lake View .....	14	Ahoma .....	2	Seattle .....	42
Las Vegas .....	81	Olympus .....	13	Sevier .....	42
Las Vegas North .....	42	Oneida .....	22	Sharon .....	149
Layton .....	29	Oquirrh .....	14	Shelley .....	32

Shreveport .....	7	Utah State U. ....	3	Central Atlantic .....	54
Smithfield .....	1	Uvada .....	25	Central .....	44
Snowflake .....	45	Valley View .....	25	East Central .....	20
South Bear River .....	10	Vancouver .....	2	Eastern Atlantic .....	1
South Blackfoot .....	35	Virginia .....	11	Eastern States .....	79
South Carolina .....	22	Walnut Creek .....	62	Finnish .....	4
South Davis .....	20	Wasatch .....	59	French .....	2
South Idaho Falls .....	68	Washington .....	97	Great Lakes .....	41
South Los Angeles .....	43	Wayne .....	24	Gulf States .....	23
South Ogden .....	9	Weber .....	14	Hawaiian .....	23
South Salt Lake .....	14	Weber Heights .....	12	Mexican .....	5
South Sanpete .....	32	Weiser .....	42	Netherlands .....	1
South Sevier .....	31	Wells .....	11	New England .....	42
South Summit .....	35	West Boise .....	69	New Zealand .....	4
Southern Arizona .....	8	West Covina .....	18	North British .....	5
Spanish Fork .....	100	West Jordan .....	36	North Central .....	33
Spokane .....	39	West Pocatello .....	9	North California .....	34
Springville .....	119	West Sharon .....	86	North Far East .....	16
Star Valley .....	36	L.D.S. Unclassified .....	83	North Mexican .....	6
Sugar House .....	30	West Utah .....	155	Northern States .....	58
Summit .....	12	Whittier .....	39	Northwestern States .....	64
Taber .....	14	Willford .....	28	Norwegian .....	4
Tacoma .....	20	Williamette .....	31	Samoan .....	1
Tampa .....	4	Woodruff .....	30	South African .....	1
Taylor .....	49	Winter Quarters .....	1	South Australian .....	1
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SEMESTER AND SUMMER ENROLLMENT, REGULAR DAYTIME COLLEGE  
STUDENTS FROM THE COUNTIES OF UTAH AS OF AUGUST 31, 1961**

Beaver .....	28	Iron .....	49	Sevier .....	93
Box Elder .....	74	Juab .....	57	Summit .....	45
Cache .....	43	Kane .....	18	Tooele .....	82
Carbon .....	72	Millard .....	103	Uintah .....	86
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Garfield .....	30	San Juan .....	58	Weber .....	226
Grand .....	13	Sanpete .....	88		
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## REGISTRATION THROUGH ADULT EDUCATION AND EXTENSION SERVICES

September 1, 1960 - August 31, 1961

Academic College	Credit Courses		Noncredit Courses		Totals	
	Enroll- ments	*F.T.E.S.	Enroll- ments	*F.T.E.S.	Enroll- ments	*F.T.E.S.
Bio. & Agr. Sciences	559	52.5	112	3.8	671	56.3
Business	794	88.5	487	16.6	1,281	105.1
Education	1,995	144.8	570	8.5	2,565	153.3
Family Living	367	35.3	519	24.2	886	59.5
Fine Arts	936	75.1	1,132	84.4	2,068	159.5
General College	630	50.1	2,106	84.8	2,736	134.9
Hum. & Soc. Sciences	3,494	402.8	4,166	69.0	7,660	471.8
Nursing	26	2.0	0	0	26	2.0
Phys. & Engr. Sciences	1,046	137.3	225	4.6	1,271	141.9
Physical Education	1,168	84.6	2,430	65.2	3,598	149.8
Religious Instruction	2,096	163.0	6,134	252.1	8,230	415.1
Unclassified	23	1.9	5,169	33.3	5,192	35.2
Totals	13,134	1,237.9	23,050	646.5	36,184	1,884.4

\*Full-time equivalent student

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